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INTRODUCTION TO ECONOMIC PROBLEMS

BY

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PREFACE

This book was written to provide a text for the second semester's work in Introductory Economics. This work is designed to follow a study of the elementary principles of Economics, which is usually given during the first semester of a year's course in Economics. It is designed particularly to follow Turner's Introduction to Economics.

The need has arisen for a book which treats economic problems from two points of view: (1) to illustrate and enforce the economic principles studied in the first course; (2) to provide up-to-date facts and discussions of the economic problems concerning which the student should develop opinions. The war together with recent legislation have made it necessary to rewrite much of the material on economic problems.

After each chapter, exercises are provided. Some of the questions are intended to test the care with which the students have read the text. Others of the questions are designed to be the basis of discussion. Still others of the questions are meant to suggest the wider aspects of the problems.

It has been my aim to present the common opinion of economists rather than to strive for originality.

My obligations to others are great. First, I owe much to my teachers: J. L. Laughlin, Thorstein Veblen, H. J. Davenport, R. F. Hoxie, L. C. Marshall, J. A. Field, C. W. Wright, A. C. Whitaker, A. S. Johnson, and John Cummings. Second, much is due to those whose text-books I

have used: R. T. Ely, A. S. Johnson, Alfred Marshall, F. W. Taussig, H. R. Seager, W. H. Hamilton, and F. A. Fetter. Third, my colleagues, Willard Fisher, R. L. McClung, A. L. Faubel, and Eugene Greider, have helped me with particular chapters. Finally, Dean J. R. Turner has given at all stages most helpful suggestions concerning the general plan and the methods of presentations of the separate problems.

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CHAPTER I

THE STUDY OF ECONOMIC PROBLEMS

1. What Are Economic Problems? Facts Involved in Economic Problems. 2. The Relation of Economic Problems to Business Problems. 3. Reasons for the Study. 4. The Truth vs. Propaganda. 5. Difficulties of the Economist. 6. The Joys of the Economist. 7. The War and Economic Problems. 8. Attitude toward Conclusions. 9. Exercises.

1. What Are Economic Problems?—Economics is the science of wealth, and as such it is concerned with the principles which govern the production, distribution, and consumption of wealth. Economic problems have to do with the difficulties involved in the application of these principles to specific cases. We may recognize three broad divisions. *First*, some arise because men have to deal with each other. Thus, to a large extent, the labor problem is a matter of adjustment of personal relations in industry. Other problems have to do with the relations of men as competitors. *Second*, some arise out of man's dependence on natural resources. Thus, productive capacity is, to a great extent, dependent upon the resources of a country. *Third*, some problems arise in connection with the effort of the government to regulate industry and commerce. Thus, we have the problems of railroad regulation and the control of trusts.

Facts Involved in Economic Problems.—There was an old idea that all human knowledge could be accurately divided, as land is divided, and that a certain area could

be given to economics and other areas given to political science, ethics, psychology, chemistry, physics, zoology, astronomy, and numerous other subjects. The common expression "fields of knowledge" reflects this old idea. The economist was supposed to keep his hands off any facts not in his particular field. Our present view places no such limitation on the activities of the economist in dealing with economic problems. We start with some question, such as the price of cotton, and we find that we must consider boll-weevils, the chemistry of soils and fertilizers, the psychology of tenant-farmers, and many other matters. Anything which affects an economic problem may come within our survey.

2. The Relation of Economic Problems to Business Problems.—The economic problem is a general problem and is studied from the point of view of the public welfare. The business problem is a particular problem and is studied largely from the point of view of private profit. Thus, the economic problem of the railroads deals, among other things, with the effect of transportation on economic development, the means for providing cheap and efficient transportation, and public regulation of railroads to insure equality of treatment to all shippers. To the board of directors of a railroad the business problem is how to develop traffic for their railroad and how, living up to all of the laws and regulations prescribed, to conduct their business in such a way that they will have money to pay interest on their bonds and dividends on their stocks. Or, again, the economic problem of labor deals with such things as the supply of labor, the conditions under which labor is performed, and the general aspects of the determination of wages. The business man as an employer thinks of the labor prob-

lem in terms of costs; how can he hire and supervise his labor so that he can produce at a cost which will enable him to sell at a profit?

3. Reasons for the Study.—The justification of our study of economic problems is found in the absolutely fundamental character of economic conditions and in the desire to be good business men and good citizens.

All civilization must have a material basis. We must be fed and clothed before we can enjoy any of the so-called "higher things." We have seen, in some of the European countries, the ghastly results which follow the breakdown of the economic organization. We wish to prevent such an occurrence in this country.

The good business man must understand the general economic problem before he can solve his own particular business problem successfully. In the old days of a simple local economic organization, a business man, by mere observation, might become aware of most of the factors that entered into his problem. But now we have an economic organization which is almost inconceivably complex, and which embraces, in many of its aspects, the whole world. In such a complicated situation the business man who relies on mere observation is sure to leave out many important factors. And even if he does consider most of the factors, he may not be able to interpret them correctly.

All may not intend to be business men, but all are citizens. The government is assuming an increasing control over economic activity. This control has great possibilities for good or for harm. The results will be good if the voters, in deciding on general policies, and the legislators, in drafting specific laws, make their decisions on the basis of an adequate analysis of the economic problems involved.

4. The Truth vs. Propaganda.—The economist in studying economic problems is seeking to find the truth. He gets all of the facts possible and from these facts he draws his conclusions. The propagandist, too often, begins with his conclusions and selects only those facts which help him in his propaganda. We are not condemning all propagandists. They are useful in getting things done, if they happen to start propaganda for something which needs to be done. But we must never forget the difference in their point of view and that of the economist; we must be on the lookout for propagandists who masquerade as scientists.

5. Difficulties of the Economist.—The methods recognized in science are experiment, observation, and comparison. The physical sciences, such as chemistry, use experiment. In the experiment the scientist controls the conditions. If he wishes to know the effect of hydrochloric acid on zinc, he gets pure acid and pure zinc and puts them together. Then he records the result, and that experiment need not be done again. The economist cannot usually experiment, as he cannot control the conditions. Perhaps he would like to try a central bank in the United States. He cannot start the bank privately. He must persuade Congress to do it. Some experiments are too costly either in money or in human life to be tried.

Other scientists can quote authorities for the facts they take as the basis of their reasoning. The economist must always be on his guard. Statements found in print may be mere propaganda; they may be based on incorrect reasoning, or they may have been correct at the time and in the place they were written, but have no application at the present time. Thus, there is no justification for the quotation of Mill's opinion on the effect of the introduction

of machinery, which was based on conditions in England in 1848, as if it had any bearing on conditions in the United States at the present time.

Because he cannot experiment, the economist must rely on observation and comparison. In applying these methods the difficulties arise from the intricate complexity of economic phenomena. Thus, prosperity and depression are the result of numberless interacting causes, and it is almost impossible to assign the exact degree which some one factor contributed to prosperity or depression. Usually we must be content to discover whether the factor helped or hindered prosperity.

The historian has an easier time than the economist; the historian can get at documents, which, at the time, the economist may not even have known about. No tantalizing delay is experienced in getting the statistics needed for history.

6. The Joys of the Economist.—In spite of these difficulties the economist has his joys. He is dealing with real, alive, present-day people. He is helping to lay the basis for all that is good in social development. There is no dull monotony of unchanging conditions. He has variety enough to make his life very spicy.

7. The War and Economic Problems.—The war deranged the economic organization of the world. It altered the relations of the factors of production. It disrupted lines of trade. It destroyed much capital and killed or maimed many laborers. Reconstruction presents grave problems, many of them economic, which must be solved if civilization is to persist.

The war, then, has presented economic problem in urgent form. It has also aided in the general solution of the prob-

lems. To one depending on the methods of observation and comparison, new conditions and rapid changes are desirable. The war brought many new conditions and changes rapid enough to suit any one. These changes throw the problems in striking relief. In ordinary times it is hard to get people to realize the effects of rising prices. But no one could be so stupid as not to have observed the effects of the doubling of prices during war times.

Then again, many new things were tried during the war. We had more governmental interference in business than ever before. When we get the facts, no doubt many interesting things will be learned from the experience of Russia with communism. During and after the war, there have been heretofore unparalleled expansions of bank credit and paper currency. In taxation, experiments were tried with excess-profits taxes and steeply progressive income taxes.

8. Attitude toward Conclusions.—Our conclusions cannot be stated so absolutely as those in *Economic Theory*. There, with the premises carefully laid down and the logic rigorously correct, we may announce our conclusions with confidence. In our study of *Economic Problems* we must be more modest. Our conclusions are tentative. They are the best that we can reach on the basis of the facts we have at present. We recognize that the conclusions may need to be revised if the underlying conditions change, or if we come into possession of new facts.

9. Exercises.—1. Suggest differences in the point of view of the economist and the entomologist in studying the boll-weevil or the greenbug.

2. How much does the business man consider public welfare?

3. Does it pay for the business man to consider public welfare?

4. Contrast the tariff as an economic problem and as a business problem.

5. Indicate precisely the relation of economic activity to the development of painting and music.

6. Show how the success of the New York banker may require knowledge of conditions all over the world.

7. How does the adoption of the initiative and referendum affect the need for the study of economic problems?

8. State the attitude of the propagandist to truth and to facts.

9. Supposing that the economist were all-powerful, outline a series of experiments to decide the best form of railroad control in the United States.

10. Why be an economist?

11. Make a list of the ways the war affected the factors of production.

12. How did the war affect private property?

13. What caution is needed in arguing from war-time experiences?

14. Why cannot we be absolutely sure of the conclusions we reach concerning economic problems?

CHAPTER II

PRODUCTIVE CAPACITY

1. The Factors in Productive Capacity. 2. Mining. 3. Agriculture. 4. Lumber. 5. Manufactures. 6. Transportation. 7. Business Management. 8. The Effect of the War on Productive Capacity. 9. Exercises.

1. The Factors in Productive Capacity.—Productive capacity is of vast importance to the welfare of a nation, for upon it the people depend for the goods and the services which make life possible and pleasant. We may state in general terms conditions which make a country productive.

First, the natural resources must be varied and abundant: agriculture demands rich land with a varying degree of heat and moisture; mining requires deposits of minerals so situated that they can be easily worked; transportation is facilitated by natural waterways and a topography that permits easy railroad construction.

Second, the people must be able and willing to work. They must have bodies endowed with physical strength, minds which apply the strength, and the moral qualities of faithfulness and honesty in work.

Third, the people in working with the resources must be aided by machines and equipment and directed so that the best methods will be used and the skill of each worker utilized to the best advantage. A short-time consideration of productive capacity might be made on the basis of the assumption that the equipment of society can be taken as fixed. A longer discussion would consider the possibilities of exhaustion of resources and changes in the edu-

cation of the people and the number and efficiency of machines which they use in production.

2. Mining.—We shall try to illustrate some of the possible meanings of productive capacity by statistics. For example, we might take productive capacity in the sense of the materials which furnish a potential supply. Thus, in the following table is given what might be called the potential supply of coal.

ESTIMATES OF HIGH-GRADE COAL AT MODERATE DEPTH¹

AMOUNT IN THOUSANDS OF MILLIONS OF TONS			
World.....	4,400	Germany.....	410
United States.....	1,975	Great Britain.....	190
Canada.....	286	Russia.....	58
China.....	995	Austria-Hungary.....	45
India.....	79	France.....	16
Siberia.....	67	Belgium.....	11

¹ Eckel, E. C., *Coal, Iron and War*, pp. 111-114.

It is interesting to contrast with this table the amounts of coal actually produced.

COAL PRODUCTION FOR 1916 IN SHORT TONS²

AMOUNT IN THOUSANDS OF MILLIONS OF TONS			
World.....	1,401,000,000	Great Britain.....	287,110,153
United States....	590,098,175	Russia.....	28,962,724
Canada.....	14,461,678	Austria-Hungary..	50,801,602
China.....	24,000,000	France.....	23,670,000
India.....	19,324,826	Belgium.....	16,458,816
Germany.....	272,099,000		

² Finlay, J. R., *Cost of Mining*, p. 84.

We notice that the United States heads both lists; that is, it has the greatest potential supply of coal, and actually

produced in 1916 more coal than any other one country. But frequently there does not seem to be any particular connection between the rank in potential supplies in coal and the annual production. Thus, China, which ranks second with reference to potential supply, is far down in the list with reference to annual production, and Great Britain, which is second in actual production of coal, ranks rather low with reference to potential supply. Another consideration which must be borne in mind in talking about supplies of things such as coal is that they are wasting assets. Once used, our coal supply is gone. Our present industrial organization is based primarily on coal, but our experience and development of the past would make it dangerous to predict that no new source of power will not in the future take the place of coal. After all, some may object to our analysis so far on the ground that it seems to depend too much on the accident of the location of political boundaries. We may prefer to test productive capacity in the coal-mining industry by the amount of product per man.

TONS OF COAL PRODUCED PER ANNUM PER PERSON
EMPLOYED¹

Years	United Kingdom	United States	Australia	New Zealand	Canada
1886-1890....	312	400	333	359	341
1891-1895....	271	444	358	388	375
1896-1900....	298	494	426	441	457
1901-1905....	281	543	437	474	495
1906-1910....	275	596	462	470	439
1908.....	271	538	500	478	422
1909.....	266	617	388	456	400
1910.....	257	618	449	478	453
1911.....	260	613	485	487	395
1912.....	244 ²	660	542	503	472

¹ Barker, J. Ellis, *Economic Statesmanship*, p. 192.

² Year of strike.

Obviously, the greater productivity in the United States is to be attributed mainly to the richness of our natural resources and to the excellent equipment with which the miner works. Besides, the miner's union has not been strong enough to limit output.

3. **Agriculture.**—Next we may consider agriculture. For our first figures we may take the number of people engaged in agriculture.

PERSONS ENGAGED IN AGRICULTURE¹

Year	Country	Number
1910.....	United States.....	12,388,623
1895.....	Argentina.....	385,323
1900.....	Austria-Hungary.....	14,121,055
1901.....	British India.....	90,893,575
1906.....	France.....	8,777,053
1907.....	Germany.....	9,723,472
1901.....	Italy.....	9,566,340
1897.....	Russia.....	15,782,669
1901.....	United Kingdom.....	2,262,454

¹ Year-Book of the Department of Agriculture, 1919, pp. 747-749.

In one sense we might take the total area of the countries as a possible supply of agricultural land, but it is probably better to take the area actually under cultivation.

CULTIVATED LAND²

Year	Country	Number of Acres
1910.....	United States.....	293,794,000
1909-1910.....	Argentina.....	44,446,000
1910-1911.....	Austria-Hungary.....	61,450,000
1910-1911.....	British India.....	264,858,000
1910.....	France.....	59,124,000
1900.....	Germany.....	63,689,000
1911.....	Italy.....	33,815,000
1911.....	Russia.....	245,755,000
1911.....	United Kingdom.....	17,862,000

² Year-Book of the Department of Agriculture, 1919, pp. 747-749.

We may take the number of horses in the country as indicating one of the factors of agricultural production. We are not justified in concluding that the same proportion of the horses in the country are used in agriculture; but, as the statistics do not distinguish between horses used on the farms and horses used in the cities, we are forced to take the total.

HORSES IN THE VARIOUS COUNTRIES¹

Year	Country	Number
1910.....	United States.....	23,016,000
1914.....	Argentina.....	8,324,000
1910.....	Austria.....	1,803,000
1913.....	Hungary.....	2,005,000
1917.....	France.....	2,283,000
1915.....	Germany.....	3,342,000
1908.....	Italy.....	956,000
1914.....	Russia.....	22,529,000
1918.....	United Kingdom.....	1,916,000

¹ Year-Book of the Department of Agriculture, 1919, pp. 644-647.

The figures for agricultural machinery are not available in terms of individual machines and the comparison by value would involve numerous difficulties. A significant item is that on December 31, 1918, in the United States there were 314,936 tractors on the farms.²

It will be almost impossible to take the agricultural produce as a whole. We can, however, get figures for the production of separate crops, particularly wheat, as it is very widely produced. We take the average production over a period of time to eliminate the variations in crops which arise from the fluctuations in the weather.

² Year-Book of the Department of Agriculture, 1919, p. 745.

AVERAGE PRODUCTION OF WHEAT FOR THE YEARS
1909-1913¹

Country	Bushels	Country	Bushels
United States.....	686,691,000	Spain.....	130,446,000
Canada.....	197,119,000	United Kingdom..	61,481,000
Argentina.....	157,347,000	Netherlands.....	4,976,000
Hungary.....	156,523,000	India.....	350,736,000
France.....	317,254,000	New Zealand.....	7,885,000
Russia.....	522,794,000		

¹ Year-Book of Department of Agriculture, 1919, pp. 517-519.

We may eliminate the accidents of size by giving the yields per acre.

AVERAGE YIELD OF WHEAT PER ACRE, 1901-1910²

Country	Bushels	Country	Bushels
United States.....	13.9	Manitoba.....	18.2
United Kingdom..	31.9	France.....	19.5
Netherlands.....	33.0	Hungary.....	17.8
New Zealand.....	31.5	Japan.....	17.4
Sweden.....	27.6	India.....	11.3
Germany.....	29.1	Russia.....	9.5

² Year-Book of the Department of Agriculture, 1919, p. 24.

The statisticians of the Department of Agriculture have constructed an index-number of productivity per acre of the cultivated area of the different countries on the basis of the six most important crops; namely, wheat, oats, rye, barley, corn, and potatoes. The average yield per acre for a number of years for the given crop is expressed as a percentage of the average yield for all countries. These index-numbers for the per-acre yield of the single crops are averaged to get the index-number for the country as a whole by weighting each crop or the index-number for

each crop by the acreage devoted to that crop. Thus, 100 would equal the weighted average of all the countries.

INDEX-NUMBER OF PRODUCTIVITY PER ACRE IN
AGRICULTURE ¹

Country	Index-No.	Country	Index-No.
Belgium.....	221	France.....	123
Netherlands.....	190	Hungary.....	113
United Kingdom..	177	United States....	108
Germany.....	169	Italy.....	96
New Zealand.....	167	Roumania.....	94
Japan.....	137	India.....	84
Canada.....	136	Argentina.....	75
Sweden.....	136	Russia.....	72

¹ Year-Book of the Department of Agriculture, 1919, p. 735.

It is noticed that the United States comes low in the list. However, we need to make the same inquiry as we did in the case of coal-mining. What is the production per man? One authority says that each American farmer produces 2.5 times as much as the individual in Belgium; 2.3 times the individual in England; 3.2 times the individual in France; 2.5 times the individual in Germany; and 6.0 times the individual in Italy.²

In Belgium we get a high yield per acre at a lower level of comfort. In the United States the unit per acre is lower (though not the lowest), but it is combined with a high level of comfort. We cannot indicate statistically the skill of the farmers in the United States; but we may consider the wide spread of agricultural education, the fact that we have more than sixty agricultural experiment stations, and the fact that agricultural machinery is widely used.

² Year-Book of Department of Agriculture, 1919, p. 25.

Agriculture, if carried on in a scientific manner, does not exhaust the soil; so we may consider the figures as indicating what may happen in agriculture for an indefinite period.

4. **Lumber.**—The matter of lumber production is midway between mining and agriculture. Lumber comes as the result of growth of trees. In the United States the lumbering operations have, in general, been carried on in a way which results in the destruction of the forests. European countries have nearly all practised scientific forestry, and they get what is called a crop of trees maturing each year. In the United States we have made a start at this sort of forestry.

FOREST AREA¹

Country	Forest Lands (Square Miles)
United States	860,000
United Kingdom	5,000
European Russia	761,772
France	36,000
Germany	54,000
Italy	15,437
Austria	41,100
Norway	26,900
Sweden	90,241
Japan, including Formosa	29,000

5. **Manufactures.**—We have already given the statistics for coal, which, of course, is an extremely important factor to the development of manufactures. Perhaps the next most important material is pig iron, since it is the basis either of material for manufactures or the basis of the machines used in manufacturing.

¹ Smith, J. Russell, *Industrial and Commercial Geography*, p. 442.

ESTIMATED PRODUCTION OF PIG IRON IN THE
WORLD FOR 1915¹

Country	Tons of 2,240 Pounds
United States.....	29,916,213
Great Britain.....	8,793,659
Germany.....	11,603,874
France.....	4,000,000
Russia.....	3,638,000
Austria-Hungary.....	1,929,000
Belgium.....	500,000
Canada.....	825,420
Sweden.....	755,000
Spain.....	421,000
Italy.....	389,000
All others.....	<u>500,000</u>
Total.....	63,271,166

The primary horse-power used in manufactures in the United States in 1914 was 22,547,574 horse-power.² Of this total 1,826,443 horse-power was derived from water-wheels. It is interesting to compare this figure for water-wheels with the estimate made by Van Hise that in the United States the water-power resources could provide about 37,000,000 horse-power.³

In the textile industries the best method of comparison is perhaps the number of spindles. In 1912 Great Britain had 55,300,000 spindles; Germany had 10,700,000; the United States had 30,500,000; and British India had 6,100,000.⁴

6. Transportation.—The natural means of transportation which a country enjoys may be divided into the ex-

¹ Metal Statistics, 1919, p. 51.

² Abstract of the Census of Manufacturers, 1914, p. 491.

³ Conservation of Natural Resources in the United States, pp. 119-120.

⁴ Smith, J. Russell, Industrial and Commercial Geography, p. 487.

ternal and internal; the external being the relation to the various oceans and seas and the principal harbors, and the internal being lakes and rivers which can be utilized for transportation. The number of steamboats in the various countries indicates the way in which countries use the external waterways.

TONNAGE OF STEAM MERCHANT SHIPS OF 100
TONS AND OVER IN JUNE, 1920¹

Country	Tonnage	Country	Tonnage
United Kingdom..	18,110,653	France.....	2,963,229
British Dominions.	2,032,227	Italy.....	2,118,429
United States.....	14,574,375	Norway.....	1,979,560
Japan.....	2,995,878	Holland.....	1,773,392

¹ Federal Reserve *Bulletin*, February, 1921, p. 186.

Internal trade in most countries is carried on by the railroads.

RAILWAY STATISTICS, 1913²

Country	Miles of Line	Loco- motives	All Cars	Miles of Line per 100 Square Miles	Miles of Line per 10,000 Population
United States....	244,418	63,378	2,445,508	8.52	26.09
Argentina.....	19,722	3,759	92,382	1.79	27.02
Austria.....	14,217	7,714	167,573	12.50	5.00
Belgium.....	2,554	4,288	98,718	48.16	7.23
Brazil.....	10,821	1,581	20,117	0.47	6.39
Canada.....	29,304	5,119	203,443	0.79	37.77
China (1912)....	606	123	3,285	....	....
France (1912)....	25,314	13,828	405,824	12.22	6.39
Germany.....	38,154	29,520	757,194	18.27	5.70
Italy.....	8,481	5,322	115,279	9.90	3.08
Japan.....	5,473	2,500	49,158	4.25	1.18
Russia.....	40,360	19,984	476,316	0.60	2.84
Spain (1912)....	9,291	2,383	52,750	4.97	4.84
Sweden (1912)...	8,806	1,951	53,154	5.68	16.07
United Kingdom.	23,691	24,718	889,751	19.51	5.18

² Bureau of Railway Economics, Comparative Railway Statistics, United States and Foreign Countries, 1913.

As a test of adequacy, the number of miles for the group of people is rather better than that for area.

7. Business Management.—It is impossible to get statistics which indicate the variations in management in the various countries. With reference to the United States we may urge that the numerous inventions of machines and new processes indicate good management. The development of “scientific management” is another indication of excellence in this field. We have developed various forms of combinations, particularly a corporate form. The development of accounting indicates one of the instruments by which management is made effective. The recent spread of higher commercial education will no doubt result in more effective management of business.

8. The Effect of the War on Productive Capacity.—Professor Bogart¹ has estimated that 12,990,571 men lost their lives as the result of the war; that 629,244 were totally disabled as the result of wounds; and that 10,554,726 were partially disabled as the result of wounds. He estimates² the property loss on land as \$29,960,000,000 and the losses of shipping and cargo as \$6,800,000,000. Much agricultural land was devastated in Belgium, France, Russia, Poland, Roumania, Serbia, Italy, and Austria. Many factories and homes were destroyed. Railroads and bridges were put out of commission. Crops, cattle, agricultural implements, orchards, were destroyed. Coal-mines, iron-mines, oil-wells, were rendered useless. Forests were ruined.

The human factor is probably the most serious. Besides the lessened efficiency of the wounded, the exposure of the war and the lowered standard of food consumption of whole

¹ Direct and Indirect Costs of the War, p. 274.

² *Ibid.*, pp. 284-288, 299.

populations will lessen the economic efficiency of the workers. Another aspect is serious. Many were killed who possessed special skill or who were important parts of business organizations. A long period may be required to replace them.

9. Exercises.—1. Why are varied natural resources desirable?

2. Contrast the parts played by race and climate in making people industrious or lazy.

3. Which was the more serious result of the war, the loss of equipment or the loss of laborers?

4. How much attention should the business man give to the potential supply of raw materials in locating his business?

5. Make a list of the various factors which might account for the differences in the yearly production of coal per person employed.

6. Compute the percentage of the area of the United States which is under cultivation. What is done with the other land?

7. How do the yields of wheat per acre correspond with what you would expect from the Law of Diminishing Returns?

8. In planning our forestry policy, how much consideration should posterity receive?

9. On what broad general factors does the permanence of the manufactures of a country depend?

10. Which is more important for the productive capacity of a country, internal or external transportation facilities?

11. Explain why Canada has so few railroads in comparison with area and so many in comparison with population.

12. What sort of statistics would you wish to have, if you desired to test the efficiency of the business men of two countries?

13. How long will it take to restore the productive capacity of Europe to what it was before the war?

CHAPTER III

MARKETING

1. The Problem of Marketing. 2. The Functions of the Middleman—Assembling—Storage—Assumption of Risk—Financing—Sorting, Packing, and Grading—Selling—Transportation. 3. Salesmanship and Advertising. 4. Methods of Marketing Farm Products. 5. The Chicago Board of Trade. 6. Speculation and Hedging. 7. The Marketing of Securities. 8. The New York Stock Exchange. 9. Speculation in Stocks—The Stock Exchange Clearing Corporation—Market Reports of Stocks, Bonds, and Money. 10. Retail Dealers in Groceries—Chain Stores—Mail-Order Houses—Department Stores—Co-operative Stores—Public Markets—Company Stores—Retail-Wholesale Stores. 11. Other Types of Retailers. 12. Types of Wholesalers—General Wholesale Markets—General Wholesalers—Specialty Houses—Catalogue Houses—Commission Houses—Co-operative Marketing—Auctions—Wholesale Branches. 13. Wholesale Consumption—Direct Sale—Organized Speculation—Raw-Material Merchants—Auctions. 14. Organizations for Marketing in Foreign Countries. 15. Exercises.

1. The Problem of Marketing.—Our complex division of labor is responsible for the problem of marketing; that is, the problem of getting goods from the producer to the consumer. In the earlier, simpler economic organization of society, often the producer and consumer were one. In other cases where they were different persons, they were still near enough to each other to make direct personal bargains. Now the producer and consumer are widely separated. The men who take charge of the process of getting the goods from the producer to the consumer are called middlemen.

Marketing links itself with our study of price-making, since it is carried on by a series of purchases and sales made

at prices which are the result of the interaction of the forces of demand and supply.

We must first understand the functions performed by the middleman in the process of marketing. Chief among these functions are: assembling, storage, assumption of risk, financing, sorting, packing, grading, selling, and transportation.

2. The Functions of the Middleman.—(1) *Assembling.*—If we think of the problem involved in providing city-dwellers with eggs, we can understand the function of assembling. Eggs are produced on widely scattered farms, and must be brought together to be shipped and sold to the consumers. The problem of the wholesaler in the dry-goods trade is to assemble from various factories all of the things which the retailer may wish to buy. The retailer in turn assembles from various producers or other middlemen articles which the customer will wish to purchase.

In New York City most of the small newspaper dealers get their papers from News Companies. Thus, the trouble of going around to all of the various publishers is avoided.

In the aspect of assembling various different things customers may want, the mail-order houses with their gigantic catalogues probably stand first, with the department stores a close second.

(2) *Storage.*—Storage is necessary particularly for seasonal products. Thus, apples are harvested in the summer and fall, and must be sold for the rest of the year. The storage function has developed particularly in connection with grain where vast elevators are utilized, and in connection with certain articles which require cool temperature to keep them in good condition where cold-storage plants have been developed.

(3) *Assumption of Risk*.—The middleman's risks are various. The price of the article may change in the interval between purchase and sale. The goods may be destroyed by fire. The quality of the goods may deteriorate. The style may change. All of these are risks which occur in the process of getting the goods from the producer to the consumer, and the middleman ordinarily assumes the risk rather than the producer. The middleman also assumes the risk of bad debts. In case of destruction by fire it is possible to shift the risk to insurance companies. But this shifting involves the payment for the service.

(4) *Financing*.—Ordinarily the financing is done by the banks, but it is one of the things which is arranged by the middleman, even if he does not himself actually provide the money. The producer often gets his money immediately after the goods are sold. Frequently the consumer does not pay for the goods until a considerable period after he has purchased them. In the interval, the middleman is either directly or indirectly furnishing the money.

(5) *Sorting, Packing, and Grading*.—The retailer buys goods in large quantities and divides them into smaller quantities to suit the needs of the consumer. City-dwellers especially have no place to store large quantities of flour and sugar, and so the middleman breaks large packages and sells whatever amount is desired. The habit of buying goods in packages has developed, and this enables the consumer to identify the goods as coming from a certain producer; and, on the whole, selling in packages is much more sanitary than the older method of sales in bulk. Grading and sorting is part of the essential function of standardization in marketing. Apart from standardization in weights, measures, and grading in quality, trading

would become a game of deceit and chance. Butter may, for example, be of varying degrees of goodness. It is the function of the middleman to sort the butter which he receives into the various grades and to see to it that those who prefer the finest butter get it and those who are content to eat the cheaper grades get those grades.

(6) *Selling*.—In selling we think of the creation of new wants. The middleman is not content to take the demand situation as he finds it. He wishes to increase the demand for the particular article. This increase in demand may be brought about by advertising and by the use of salesmen. The activities of the clerks in the store are directed not only to supplying the things which the customers ask for, but also to suggesting things which they think the customer may be persuaded to purchase.

(7) *Transportation*.—Transportation over the great distances between producers and consumers is now a specialized function, and it is taken over by the railroads and other companies. But here again the middleman is one who directs and pays for the transportation. And he directs and often carries on with his own equipment the transportation from the store to the customers. After grading, the transportation problem is to have goods go as far as possible toward the consumers before breaking bulk.

We do not mean to imply that these functions will always be performed as they are at present. But somebody must do them. The trend of development seems to be in the direction of turning over more and more of the functions to the middleman. In the early days the consumer performed many of them for himself. The permanence of our present arrangements depends on whether we are willing to pay for the services. We may say there are two com-

modities, groceries delivered and groceries to be carried home. In each case the price is set by the forces of demand and supply. If people cease to be willing to carry groceries home, the demand for undelivered groceries will fail and so grocers will supply delivered groceries.

3. Salesmanship and Advertising.—The older idea of salesmanship stressed the feature of skill in bargaining. The skilled salesman could sell anything to anybody (at least once). The newer idea is broader. The skilled salesman is a specialist in marketing. His ideal is to get the goods at the time, in the place, and of the quality, desired. The sales department helps plan what will be produced and how it shall be marketed, including the advertising.

We have seen that the fundamental factor in the demand for a product at all stages of the marketing process is the desire of the consumer. Thus, the clothing manufacturer sells to dealers but directs his advertising campaign toward the consumer. If the consumer desires the clothes, the dealer will be anxious to buy them from the manufacturer. Advertising aims to stimulate the desire for some commodity. The use of a brand or a trade-mark facilitates the identification of the goods. In some lines the goods can be placed in trade-marked packages. The advertisers have developed methods of appeal by following psychological laws. They use a variety of mediums—newspapers, bill-boards, window displays, cards in cars, letters, circulars, and many other devices—but all with the purpose of creating desire in the consumers.

4. Methods of Marketing Farm Products.—We take the marketing of wheat as typical of the problems which arise in connection with the marketing of agricultural products. The farmer ordinarily sells his wheat to a grain buyer who

represents a dealer in one of the big primary markets. A farmer may sell his wheat to a corporation formed by a group of farmers to undertake to carry on the process of marketing their own product. When the grain arrives in the market, it is graded, ordinarily, by state authority, sometimes by boards of trades or produce exchanges, and sometimes by the federal government. The graded wheat is then unloaded at an elevator, and an elevator receipt taken which calls for a certain amount of a definite grade of wheat. We may assume that the wheat is purchased by a miller. What he gets is the warehouse receipt. With this receipt he calls upon the warehouse company to deliver the wheat. He takes the wheat to the mill and grinds it into flour and the various by-products, such as cattle food. The flour may be sold to a jobber or wholesaler who sells it to the retailer to be sold to his customers to be utilized by them in the preparation of food, or it may be sold to a baker who makes bread, crackers, or other form of bakery products which he sells directly to the consumer or indirectly through retailers.

5. The Chicago Board of Trade.—We may take as typical of the produce exchanges the Chicago Board of Trade. It is the greatest market for wheat in the United States. It is an organization composed of 1,625 members, and deals in grains and provisions. Some of the things are sold for cash and immediate delivery, and in this case there are tables for samples of the commodities. Most of the trading, however, consists in dealing in futures. Here we have the pits for the various grains. The pit has an arrangement which rises by steps from the floor, then goes down by steps into a pit. The purpose of this arrangement is to afford the greatest possible number of people a chance

to see each other. In the wheat-pit are gathered the men who wish to buy or sell futures in wheat. They have developed a sign-language by which they convey their bids and offers. The wheat-pit is the focus of the offers to buy and sell wheat from all over the country. The possibility of dealing in futures depends upon the grading of the commodities. What are called the contract grades are Nos. 1 and 2 red winter; No. 1 northern spring; Nos. 1 and 2 hard winter, and No. 1 velvet chaff. These are perfectly definite kinds of wheat with reference to quality and condition. So, any one may buy the wheat, even though he is not himself a judge of wheat.

6. Speculation and Hedging.—The speculation in futures usually concerns itself with the months just before the harvest or the time just after the supplies of wheat from the harvest in the southern hemisphere will be available, or the time when the harvest in this country is thoroughly completed. The effect of speculation on the produce exchange is to make more even the price, and so to promote a more even consumption of the commodity throughout the year.

Speculation in grain performs a very useful function in permitting insurance. Suppose we have a miller who wishes to bid on a contract to furnish state institutions a certain quantity of flour each month. He might take a chance on the price of wheat at the various times through the year in which it would be needed. It might turn out that he would make more than his manufacturing profit, but also he might make less. However, he can insure his manufacturing profit and eliminate the speculative risk by finding a speculator who will promise to deliver wheat to him over the period of the contract at an agreed price.

Hedging.—The following illustration is simplified and the margins taken in even cents for ease in calculation, but it gives the essence of the hedging transaction. We assume that a miller wishes to manufacture flour for which he has no customer. It will be sold in the market a month from the time he buys the wheat. Now the price of flour in all periods, except just preceding a harvest, follows fairly closely the price of wheat. In periods after the harvest, the future price of wheat and the cash price differ roughly by the costs of carrying the grain, such as the storage charge and the interest on the funds used to purchase the grain. We will assume that it costs 1¢ to carry a bushel of wheat for one month. We will assume that the cost of manufacture including the miller's profit is 2¢ a bushel. The miller wishes to manufacture the flour without taking the risk which comes from the fluctuations in the price of wheat and flour, so he uses the speculative markets to hedge or to assume the risk. In December he buys the wheat to grind at, we may say, \$1.20 a bushel, and at the same time he sells an equal quantity of wheat at \$1.21 to be delivered in January. He grinds the wheat and in January has flour to sell. If market conditions have not changed, he sells his flour at \$1.23 for the amount made from a bushel of wheat and buys the wheat to deliver on his future contract at \$1.21; so he makes merely his milling profit. Suppose, however, the price of wheat in January is \$1.26. He sells his flour at \$1.28 and so makes 5¢ a bushel extra profit, but he loses 5¢ a bushel on each bushel of wheat he delivers on his speculative contract. Thus, his speculative gains and losses just balance, and he makes his milling profit. Suppose the price of wheat falls and in January is \$1.16. In selling flour at \$1.18 he loses 5¢

on the amount made from a bushel. But he makes 5¢ a bushel on his speculative wheat, receiving \$1.21 for wheat he buys for \$1.16. Thus again, his speculative gains and losses just balance and the miller makes his milling profit. Any expense in the way of commissions the miller charges up as insurance. The illustration shows the aptness of the use of the term "hedge," for the miller is betting on both sides of the market.

The following clipping indicates the variety of things which influence the prices in the speculative markets and the commodities dealt in:

ERRATIC MARKET IN GRAINS AT CHICAGO

EXPORT ORDERS EXPECTED OVER SUNDAY FAIL TO MA-
TERIALIZE AND WHEAT DROPS

Special to The New York Times

CHICAGO, June 6.—Action of the wheat market was most erratic. A break of $1\frac{1}{2}$ cents early on rather general local selling was followed by a bulge of 2 cents on buying by Bartlett Frazier and others in the Snow report from Nebraska, which was construed as bullish, but Blum and other local professionals started to sell heavily and, with hedging by the J. Rosenbaum Grain Company against purchases in the Southwest, the market dropped 4 @ $4\frac{3}{4}$ cents from the high, touching \$1.27 $\frac{1}{2}$ for the July and \$1.13 $\frac{1}{2}$ for the September.

The greater part of the news was of a bearish character, and apparently some of the New York exporters, who bought futures Saturday, expecting liberal foreign acceptances over Sunday, sold out owing to the slow demand. That 500,000 bushels were reported as having been sold was responsible for the sharp advance toward the close that carried the July up $2\frac{1}{2}$ to \$1.30 at the last, while September was up 3 cents to \$1.16 $\frac{1}{2}$ and closed $\frac{3}{4}$ cents higher for the day, though July was $1\frac{1}{4}$ cents lower.

There was considerable selling of July and buying of September, part of it being an effort to hold up the July in order to make a market to sell on. Had it not been for the break in the foreign exchange, it is believed that a liberal business in export wheat would have been done over Sunday, as American prices for deferred shipment are regarded as the lowest in the world, and cash wheat, f. o. b. The Gulf, for deferred loading, is about Chicago July price, plus the freight difference.

At the inside figure today, July was off $14\frac{1}{4}$ cents and September $9\frac{1}{2}$ cents from the high of last week, which many traders regarded as sufficient for the time being; but many of the local operators, who have been very bullish of late, are now over on the bear side, believing that the crop reports are entirely too favorable for bulges to be maintained. The Kansas official report showed an increase of 900,000 acres over the preliminary returns and the total for the State is 10,000,000 acres, but the crop estimate is unchanged at 115,000,000 bushels, or the same as shown in May. Recent rains and cool weather in the Southwest have resulted in excellent filling, and harvest started in some sections of Kansas today and will be on in Southern Indiana by the end of next week. Premiums on spot wheat here were easier, with red Winter leading, showing as much as 2 cents under Saturday.

Receipts of corn today aggregated 1,001 cars, of which around 750 cars were delivered on to-arrive contracts. The lack of pressure of cash grain was a surprise to the speculative trade, who sold early on the large receipts and were forced to cover later, making a close $\frac{3}{8}$ cent higher for the day. The country has ceased to offer corn in volume, due to the press of field work. Local public elevator stocks increased only 210,000 bushels the last week, as large shipments partly offset the amounts taken into store. Export sales of 250,000 bushels of corn were reported at the seaboard, but there were no bids here. Oats finished $\frac{1}{4}$ @ $\frac{3}{8}$ cents lower, with trade largely of a local character.

In the visible supply there was a reduction of 900,000

bushels of wheat, making the total 8,334,000 bushels, against 9,234,000 the previous week and 38,259,000 last year. Corn increased 3,745,000 bushels, and is 18,848,000, against 15,103,000 the previous week and 2,679,000 last year.

Primary arrivals of wheat for the day of 1,983,000 bushels, compared with 1,158,000 bushels last year; week ago, a holiday. Shipments were 1,042,000 bushels; last year, 685,000.

Corn receipts were 1,748,000 bushels; last year, 1,108,000, and shipments, 1,061,000 bushels; last year, 314,000.

Today's Chicago prices for the principal commodities were as follows:

WHEAT					
	High.	Low.	Close.	Prev. Close.	
July.....	\$1.32¼	\$1.27¼	\$1.30	\$1.31¼	
Sept.....	1.17½	1.13½	1.16½	1.15¾	
CORN					
	High.	Low.	Close.	Prev. Close.	Last Year.
July.....	.65¼	.64¾	.65	.64¼	1.91½
Sept.....	.66¼	.65¾	.65¾	.65¾	1.57¾
OATS					
	High.	Low.	Close.	Prev. Close.	Last Year.
July.....	.40⅞	.39⅞	.39⅞	.39⅞	.96⅞
Sept.....	.41⅞	.41	.41	.41½	.78¾
RYE					
	High.	Low.	Close.	Prev. Close.	Last Year.
July.....	1.25½	1.21¼	1.21¼	1.25¼	2.03½
Sept.....	1.06½	1.03	1.03	1.05½	1.85¼
PROVISIONS					
Lard—	High.	Low.	Close.	Prev. Close.	Last Year.
July.....	9.70	9.65	9.67	9.72	20.65
Sept.....	10.00	9.97	9.97	10.00	21.50
Ribs—					
July.....	9.90	9.85	9.90	9.90	18.07
Sept.....	10.10	10.07	10.07	10.10	18.85
Pork—					
July.....	17.10	17.00	17.00	17.30	38.45

7. The Marketing of Securities.—Governments and corporations furnish the supply of securities, and investors furnish the demand. The middlemen consist of underwriters, bankers, and brokers. The marketing problem is rather different from that of commodities because of the intermittent character of the supply. A corporation does not exist to create securities (eliminating, of course, the fake oil and gold-mining companies). The sale of securities is an incident to the starting of the business or the increase in the scope of its operations.

Another difference is what might be called the durable character of the securities. Most of the sales on the Stock Exchange are resales. "Second-hand" stocks do not suffer the same depreciation found in "second-hand" clothes or other commodities.

Low-grade securities are those with great risk and promised high return. They are sold to those who wish to take a chance and also to the inexperienced and gullible. The sales talks and advertising hold out wonderful promises, alas! too rarely fulfilled. The securities are often sold by the promoters of the enterprise.

High-grade securities are the result of sounder financing. In the case of large corporations, they are almost always handled by investment bankers. In some cases the corporation raises new capital by offering to its shareholders the right to subscribe, at an attractive price, to a certain amount of the new stock.

An investment banker, or, in the case of larger issues, a syndicate, buys the issue of securities or agrees to take any not subscribed for by the public. In this way he assumes the risk of the transaction. The investment banker also performs the assembling function. He provides the in-

vestor with the type of security he wishes with respect to safety, denomination, duration, character of the business, etc. The investor relies on the investigation made by the investment banker to obtain information about the securities. The banker does not guarantee the securities, but his recommendation is given great weight by investors.

8. The New York Stock Exchange.—The New York Stock Exchange is an illustration of an extremely highly organized market. It is an unincorporated association of 1,100 members. Technically the membership is called a seat on the exchange, although there are no seats on the trading floor. The stock exchange deals in stocks and bonds which are listed on the stock exchange. The process of listing involves a certain minimum amount of publicity with reference to the condition of the company and certain precautions as to the form of the certificates and the registration and transfer which are aimed to make it safe to deal in the stocks and bonds of the company. In the stock exchange are brought together from all over the country the bids and offers of the buyers and sellers for these listed stocks and bonds. The members of the stock exchange are ordinarily called brokers, and they take orders from their customers to buy or sell. Some of the members of the stock exchange speculate on their own account. These brokers have offices and branches in various parts of the country, from which they receive orders by telephone or telegraph or cable. On the floor of the exchange are twenty posts. All of the stocks are allocated to these posts. In making the division, the aim is to have the active stocks separated. If a broker has an order to buy certain stock, he will go to that post and there will presumably find a broker who wishes to sell the stock.

9. Speculation in Stocks.—There are no dealings in futures in the stock exchange. In general the two classes of speculators are called the bulls and bears. The bulls are those who think that the prices of stocks are going to go higher. The bears are those who think that the prices of stocks are going to go lower. We may illustrate the activities of the speculator from both standpoints. Suppose a person thinks that the prices of stocks are going higher. Obviously then, in order to make a profit it is necessary to buy stocks and sell them later at the higher price. Ordinarily, a transaction is carried on by the purchaser putting up with the broker a certain sum of money which is called a margin. This margin is usually about 10 per cent to 20 per cent of the price of the stock. The broker adds to this margin some of his funds and borrows from the bank the remainder of the money necessary to make the purchase of the stock. If all goes well and the price of the stock goes up, then the customer orders the broker to sell. The broker, from the proceeds of the sale, pays off the loan at the bank, takes out the amount of money which he advanced and the interest on both sums, and returns to the customer the balance. It will be seen that this enables the customer to carry about five to ten times as many shares as he could carry if he were forced to pay the full cost of the stock. Of course, if things do not go as he expected, it means that he loses five to ten times as much as he would if he had bought the stock outright; but most speculators do not contemplate the possibility of loss.

If a person thinks that stocks are going down, the process is a little bit more complicated, for here he must sell stock which he does not possess and buy it back later at the lower price. As far as the customer is concerned, the

process is just the same as the other. He puts up the margin with the broker. The broker sells the stock and then borrows stock in order to make the delivery. That is, he finds some other broker who is willing to lend him the stock, sometimes for a certain premium, and with this stock he makes the delivery. If everything goes right or, perhaps we may say, goes wrong, and the price of stock goes lower, the customer orders the broker to buy the stock. With this stock the broker repays the man from whom he had borrowed the stock. Here again the customer makes the difference between the two prices less the commission.

The Stock Exchange Clearing Corporation.—In the stock exchange clearing corporation we have an extension of the idea of the clearing-house, which was explained in Turner's Introduction, the chapter on Banking. During the day the broker may buy and sell a certain stock many times. The principle of the stock clearing is that he shall deliver to the stock exchange clearing corporation a certain number of shares of stock if he has sold more than he bought or receive from the clearing corporation stock if he has bought more than he has sold. The clearing corporation also takes care of the payments for the stock. Thus, the clearing is not quite so simple as the bank clearing which involves only the checks since this clearing involves not only cash and checks but also stocks. The stock exchange clearing corporation also handles the collateral back of loans of stock-brokers. Thus, if the loan is called and a new loan is arranged for, the clearing corporation sees that the new lender gets the collateral when it has been released by the first lender.

The stock exchange exists primarily for the purpose of

facilitating the sales of stocks and bonds. Because the stocks are uniform, that is, for example, one share of United States Steel common is just the same as another share, any one may deal on the exchange. This has led to great speculation on the exchange. We recognize two general types, namely, the speculation of outsiders who are rather contemptuously referred to in Wall Street as "lambs" and the speculation of experienced speculators. The "lambs" utilize the stock exchange as a gambling device. They have no information on which to base their purchases. They follow wild tips, and the result would not be different if they were betting on where the ball would stop in a roulette-wheel. The function of the other speculators, those who are speculating with some information, is to help in the apportioning of capital among the industries which desire it. Various companies put forth various types of securities aimed to raise capital to be utilized in their business. When an industry is new and the outcome uncertain, conservative investors do not ordinarily care to invest their funds in the securities of that industry. But if speculators think there is a chance that the industry will prove profitable, they may be willing to buy the stock and hold it for the inevitable rise which will come if the industry proves profitable. Thus, in the early days the telephone company's securities were highly speculative. The telephone company had not yet proved its worth. For a long time the railroad securities were classed as speculative. Later the common stocks, particularly of industrial corporations, belonged to the speculative class.

The stock exchange gives a continuous market for the stocks. During the hours when the exchange is open, one can always sell or buy. In times of depression, many com-

NEW YORK STOCK

FRIDAY

Day's Sales. Thursday. Wednesday. A Year Ago. Two Years Ago.
 595,942 563,650 572,701 603,504 918,706

1921.		Sales.	Stock and Dividend Rates.	First.	High.	Low.	Last.	Net Chge.	Closing.	
High.	Low.								Bid.	Ask.
48	26½	100	Adams Express.....	45	45	45	45	..	45	46½
40	30	100	Air Reduction (4).....	33	33	33	33	-2	36	38¾
39½	17	1,700	Ajax Rubber.....	24½	24½	23¾	24	-¾	23¾	24½
1½	¾	100	Alaska Gold Mines.....	½	½	½	½	..	..	..
1¾	1	1,400	Alaska Juneau.....	1	1	1	1	-¼	1	1½
55½	34	1,400	Allied Ch. & Dye (4)....	44¾	45	44¾	44¾	+½	44½	44¾
93¾	83	300	Allied C. & D. pf. (7)...	88¼	89½	89½	88¼	+1¾	89¼	89¾
39¼	28¼	700	Allis-Chalm. (4).....	34	34	34	34	..	33¾	34¼
65½	26½	700	Am. Ag. Chemical.....	35	35¾	35	35¾	+1½	35	35½
54	46½	200	Am. Bank Note (4)....	50¾	51	50¾	51	+½	50	51
65½	29½	100	Am. Bosch Mag.....	34	34	34	34	+½	33¾	35½
32¾	23¼	1,800	Am. Can.....	27¼	28¼	27¼	28	+¾	27¾	28
88	76¾	100	Am. Can pf. (7).....	79	79	79	79	-1	78¾	80
133	115¼	600	Am. Car & Fdy. (12)...	128	128	127¾	128	+1½	127	128½
114	108	200	Am. Car & F. pf. (7)....	108½	108½	108	108	..	107½	108
29	8¾	200	Am. Chiclé.....	9	9	9	9	-½	9	9½
8¾	4¼	200	Am. Drug Snyder.....	4¾	4¾	4¾	4¾	..	4½	4¾
13¾	8	100	Am. Hide & Leather....	10¾	10¾	10¾	10¾	+¾	10¾	11
59½	42	100	Am. Ice (5).....	56	56	56	56	+¼	56½	57
53¾	21¼	7,600	Am. International.....	33¼	33¾	32½	33	+¾	33¾	33½
11¾	7¾	400	Am. La F. F. En. (1)...	9	9	9	9	..	8¾	9¼
62½	17¼	200	Am. Linseed.....	23	23	23	23	+¼	22¼	23¾
93½	73½	7,800	Am. Locomotive (6)....	90½	91	89	90½	+½	90½	91
10	3½	900	Am. Safety Razor.....	4	4	3¾	3¾	..	4	4¾
44¾	29¾	1,000	Am. Smelt. & Ref.....	36¾	36¾	36¾	36¾	+½	36½	36¾
83	63¾	400	Am. Sm. & R. pf. (7)....	70¾	72	70¾	72	+1½	71½	72½
72½	63	200	Am. Sm. Sec. pf. A (6)...	66¼	66¼	66	66	-2	66	67
31¾	18	800	Am. Steel P. (3).....	25	25	25	25	..	25	25½
96	58¾	2,800	Am. Sugar Ref.....	62¾	62¾	61¾	62½	-¾	62	62¾
107¼	85¼	500	Am. Sugar R. pf. (7)....	89¼	89¼	89	89	-½	88¼	89½
88	37¼	9,400	Am. Sum. Tob. (8).....	43	43½	40¾	41½	-1¼	41½	41¾
108½	95¾	3,200	Am. Tel. & Tel. (9)....	107½	107¼	107½	107¼	+½	107½	107¼
129¾	111½	1,100	Am. Tobacco (12).....	124¾	126½	124¾	125½	+1¾	125	126
127¾	110	100	Am. Tob., Cl. B (12)....	124¾	124¾	124¾	124¾	+1¾	123	124½
94	86	30	Am. Tobacco pf. (6)....	90	90	90	90	+1¾	89	90¾
82¼	57	5,700	Am. Woolen (7).....	75	75¾	74¼	75¼	+½	75	75½
10	6¾	100	Am. Zinc, L. & S.....	8¾	8¾	8¾	8¾	+¾	8	8½
43½	31¾	1,800	Anaconda Copper.....	37½	38	37¼	38	+1	37½	38½
3½	1	200	Assets Realization.....	1¼	1¼	1¼	1¼	..	1¼	1¼
35½	24	100	Assoc. Dry Goods (4)...	31	31	31	31	+¾	31½	32
87¼	76¼	1,800	Atch., T. & S. F. (6)...	86	86¾	85¾	86¾	+½	85¾	86½
81½	75½	200	Do pf. (5).....	80½	80½	80½	80½	+½	80½	81½

EXCHANGE TRANSACTIONS

PT. 23, 1921.

Same Period

Year to Date.
123,056,5131920.
160,426,771½1919.
218,185,5401918.
95,439,313

1921.		Sales.	Stock and Dividend Rates.	First.	High.	Low.	Last.	Net Chge.	Closing.	
High.	Low.								Bid.	Ask.
29¾	17½	100	Lee Rubber & T. (2)....	26½	26½	26½	26½	+ ⅞	26	27
56½	47½	4,700	Lehigh Valley (3½)....	53½	54½	53½	53½	+1	53¾	54¼
105½	97½	100	Lig. & M. pf. (7).....	101¼	101¼	101¼	101¼	- ⅝	100	101½
21½	10	500	Loew's, Inc.....	13¾	14½	13¾	14½	+ ⅜	14	14¼
12¾	7¾	200	Loft, Inc. (1).....	9¾	9¾	9¾	9¾	+ ½	9¾	9¾
118	97	300	Louis & Nash. (7).....	109¾	110	109¾	110	+1½	110¼	110½
18	10	200	Mallinson & Co.....	18	18	18	18	+1	18¼	18½
58½	35¼	200	Manhat. Elev. (7).....	40½	40½	40½	40½	+1	40	41
7	3	200	Market St. Ry.....	4	4	4	4	+ ½	3¾	4½
21½	12½	200	Marland Oil & Ref.....	19	19	18	18	..	17	18½
15½	8	100	Max. Motors Cl. B.....	8½	8½	8½	8½	- ⅜	8½	9
93¼	65½	700	May Dept. S. (8).....	80½	82	80½	81½	+1¾	80	82
101½	95	100	May. D. S. pf. (7).....	101	101	101	101	+3½	100	..
167¼	84½	40,700	Mex. Petrol. (12).....	103¾	104½	102	103¾	+ ⅜	103½	103¾
24	15¾	500	Miami Copper (2).....	21	21¼	21	21¼	+ ⅜	21	21¼
15½	10	1,800	Mid. S. Oil (1.20).....	12	12	11¾	12	..	11¾	12
33½	22	900	Midvale Steel.....	25¾	26	25¾	25¾	+ ⅜	25¾	26
14¾	9	1,000	M. & T. L. new.....	9¾	10	9¾	9¾	..	9¾	10¼
73¼	63	500	M., St. P. & S. S. M. (7)	70¾	71	70¾	71	+ ¼	70½	71½
3	¾	400	Mo., Kan. & Texas.....	1½	1½	1½	1½	+ ⅜	1½	1¾
5¾	2¼	600	M., K. & T. pf.....	3	3	2½	2½	- ½	2½	3
23¼	16	900	Missouri Pacific.....	20	20½	20	20½	+ ½	20¾	20½
43½	33½	1,000	Missouri Pacific pf.....	40	40¾	39¾	40¾	+ ⅝	40	40¼
25	14½	200	Montgomery Ward.....	18½	18¼	18½	18¼	+ ½	18¼	18¾
35½	15	100	Nat. Cloak & Suit.....	16¾	16¾	16¾	16¾	-1½	16¾	20
79¼	46	100	Nat. C. & S. pf. (7).....	46½	46½	46½	46½	..	46½	50
65	26	200	Nat. En. & St. (6).....	37	37½	37	37½	+1½	37	37½
81	67¾	100	Nat. Lead (6).....	75½	75½	75½	75½	+ ½	74½	76¼
108	100	100	Nat. Lead pf. (7).....	102	102	102	102	-1	101	105
6½	3½	500	N. Rys. of M. 2d pf.....	4¾	4¾	4¾	4¾	- ⅞	4¾	5
13½	9	100	Nevada Con. Copper....	11	11	11	11	..	10¾	11
77½	46	100	N. O., T. & M. (6).....	53	53	53	53	- ½	51	52½
74½	64½	3,600	N. Y. Central (5).....	73	73½	73	73½	+ ½	73¾	73½
61½	39	100	N. Y., C. & St. L. (5)...	54¾	54¾	54¾	54¾	- ⅞	54¾	57
39	20½	100	N. Y. Dock (2½).....	30	30	30	30	+1	30	30¾
23½	13½	3,300	N. Y., N. H. & H.....	15¼	15½	14¾	14¾	- ¼	14¾	15¼
21¾	16	1,800	N. Y., O. & W.....	21	21½	21	21½	+ ⅜	21	21¼
13¼	8½	200	Norfolk Southern.....	8½	8½	8½	8½	+ ¼	8½	9
104¾	88½	1,200	Norfolk & W. (7).....	96¾	97½	96¾	97	+2	96¾	97¾
40¾	32¼	1,700	North Am. etfs. (3).....	39¼	39¾	39¼	39½	+ ½	39¾	39½
35¼	31¾	2,000	Nor. Am. etfs. pf. (3)...	34¾	35¼	34¾	35	+ ¼	35½	35¼

modities are unsalable. Literally, the owners cannot sell them at any price. They lack an organized market with speculative buyers. In times of depression, stocks listed on the stock exchange can be sold. The speculators are willing to take them at a price which promises to give them a profit later on. This continuous market is of the utmost importance in banking. Loans can be made with listed stocks as collateral security, because the bankers know that by requiring a margin of about 20 per cent they can always be sure of getting their money back from the sale of the collateral if the borrower does not repay the loan.

The financial pages of the newspapers devote considerable space to the transactions of the stock exchange. The record of the sales of stock varies a little in form in the different papers. The table on pages 36 and 37 is from the *New York Times*. It represents about one-fifth of the whole report.

The headings are probably self-explanatory except "Net Change." It means the change from the close of the previous day. It will be noted that the quotations are all on the basis of 100 share lots.

The bond sales, except the government war loans, are reported in greater detail, each separate transaction being recorded. The unit here is \$1,000 par value of the bonds. The yield on the Liberty bonds is figured on the last sale.

Another thing of great interest is the record of rates for loans of various durations and variously secured both in New York and London. The amount of exchanges at the clearing-house means the total checks brought by the various banks to the clearing-house to be presented to the banks upon which they are drawn, as explained in Turner's

BONDS ON STOCK EXCHANGE

FRIDAY, SEPT. 23, 1921.

	1921.	1920.	1919.
Day's sales.....	\$14,654,400	\$16,033,850	\$10,701,000
Year to date.....	2,225,149,595	2,656,319,650	2,381,080,000

UNITED STATES GOVERNMENT WAR LOANS.

Sales.	Issue.	Open.	High.	Low.	Last.	Net Ch'ge.	—Closing—	Bid.	Asked.	Yield.
555	—Liberty 3½s, 1932-'47.....	88.80	88.98	88.32	88.38	-.40	88.32	88.38	4.17	
1	—Liberty 3½s, reg.....	88.60	88.60	88.60	88.60					
..	—Liberty 1st cv. 4s, 1922-'47.....						89.50	89.70	4.71	
..	—Liberty 2d 4s, 1927-'42.....						89.48	89.64	4.79	
2	—Liberty 2d 4s, reg.....	89.30	89.30	89.30	89.30					
83	—Liberty 1st cv. 4½s, 1932-'47.....	89.50	89.74	89.50	89.62	+.12	89.62	89.70	4.96	
603	—Liberty 2d cv. 4½s, 1927-'42.....	89.58	89.68	89.56	89.64	+.16	89.64	89.68	5.05	
6	—Liberty 2d cv. 4½s, reg.....	89.44	89.44	89.42	89.42	+.10				
913½	—Liberty 3d cv. 4½s, 1928.....	93.36	93.64	93.36	93.64	-.30	93.60	93.64	5.31	
54	—Liberty 3d 4½s, 1928, reg.....	93.30	93.44	93.30	93.40	+.14				
1,382	—Liberty 4th 4½s, 1933-'38.....	89.70	89.88	89.70	89.88	+.22	89.86	89.90	5.14	
6	—Liberty 4th 4½s, reg.....	89.62	89.66	89.60	89.66	+.14				
2,037	—Victory 3¾s, 1922-'23.....	99.18	99.30	99.18	99.30	-.08	99.30	99.32	4.17	
2,806	—Victory 4¾s, 1922-'23.....	99.18	99.30	99.18	99.30	-.06	99.30	99.32	5.18	
94	—Victory 4¾s, reg.....	99.02	99.10	99.02	99.10	+.04				

Following sales are given in lots of \$1,000:				14....104¼	7....94¾	1st term 5s
Chinese Ry 5s	1....57¾	1....66¼	2....104¼	10....95	1....67¼	
4....46½	4....57	2....65½	12....104½	5....95½	3....67	
5....47½	1....57¼	conv 5s. Ser B	5....104	20....95¼	St P & K C S	
3s30f. 47	6....57	2....65½	27....104½	5....95½	L 1st 4½s	
C Bergen 8s,	2....57	ref 4½s	ref 4½s	5....95¾	6....68½	
temp cfs	10....56½	5....58½	2....83	5....95½	1st 4½s	
20....100¼	7....56½	4....58½	1....81½	gen 3½s	2....68¼	
3....100	2....57	C M & P Sd 4s	6....82	1....67¾	S A & A P 4s	
City Berne 8s	4s	5....64	2....82½	1....67½	4....64½	
1....101½	11....41½	15....64¼	Gulf & S I 5s	6....68	1....64½	
5....101½	1....41	4....64	1....72	con 4s, Ser A	Sea A L ref 4s	
7....101½		C & N W tem	H Val 1st 4½s	13....72	1....37¾	
3....101	Adams Exp 4s	6½s	1....74¾	deb 4s, 1934	con 6s	
City Bordx 6s	1....62	13....102	H & M 1st &	19....81½	8....47¾	
1....84½	Am Ag Ch 7½s	gen 5s	ref 5s, Ser A	ref & imp	1....47½	
City Christ 8s,	2....97	5....94½	5....67¾	4½s, Ser A	2....47½	
K.L.&Co cfs	1....96¾	5....94¾	27....68	3....80¾	3....47	
4....101	1....96¾	5....95	4....67¾	NY, Chi & S L	1....47¾	
C Copen 5½s	Am Sm & Ref	7s	adj inc 5s	1st 4s	3....47½	
3....81½	1st 5s	1....103¼	3....45¾	2....82	S Stl H s f 8s	
1....81½	1....78	3....104	6....45½	8....81¼	Ser A	
2....81½	5s7f. 77½	5....103½	15....45½	NY, NH & H non	4....95¼	
2....81½	1....78	Chic Rys 5s	10....45½	cv deb 4s, '55	S C O cn 7½s	
O Lyons 6s	1....78½	2....64	8....45½	1....38½	1....92½	
1....84¾	2....78½	7....63¾	26....45½	conv 6s	3....92¾	
1....84	4....78	7....64	2....45½	1....52	4....92½	
1....84½	2....78½	C R I & P gen	1....45¾	1....52¾	3....92¾	
1....84¾	Am T & Tel	4s	26....45¾	NY Rys adj 5s	7....92¼	
City Marsls 6a	col 4s	10....74¼	1....46	6....8¼	4....92¾	
1....84½	1....83½	ref 4s	Ill C 4s, 1952	11....8½	21....92½	
1....84¼	2....84½	15....70¾	3....74½	ref 4s	5....92¾	
City Paris 6s	2....83¾	27....70¾	4s, 1953	2....22¼	24....92½	
8....99½	col tr 5s	5....70¾	10....73¾	NY Tel	S B T & T 1st	
City Zurich 8s	4....88¼	2....70¾	ref 4s	s f deb 6s	5s	
11....101¼	1....88½	6....70¾	5....78	2....96¾	10....85¾	
6....101	2....88¾	8....70¾	1....78½	2....96½	1....86	
Dan Mun s f	1....88¾	1....70¾	5½s	4½s	So Pac col 4s	
8s, B	1....88¾	5....70¾	3....93	1....85¾	2....73¾	
.5....103						

Introduction, pages 300-301. The amount is given to be used as an indication of the volume of business. Any increase in business will result in more checks being drawn, and so greater clearings.

MONEY

Friday, Sept. 23, 1921.

Call loans on the Stock Exchange ruled unchanged at 5 per cent. Thursday's prevailing rate. Outside the Exchange there were a few loans arranged at 4 per cent. Time money market remains quiet, borrowers bidding $5\frac{1}{4}$ per cent. for 60-day funds, with $5\frac{1}{2}$ being offered, with a differential of $\frac{1}{4}$ of 1 per cent. applying to maturities running over the year-end. Demand is light, with renewals making up the bulk of business. Acceptances were firm but unchanged, likewise commercial paper, where brokers report an increasing volume of paper at lower discount now prevailing.

Renewal.	CALL LOANS			Thursday's
	High.	Low.	Last.	Last.
5	5	5	5	5

TIME LOANS

Mixed collateral, 60 days.....	$5\frac{1}{4}$ @ $5\frac{1}{2}$
3, 4, 5 and 6 months.....	$5\frac{1}{2}$ @ $5\frac{3}{4}$
All industrial collateral, 60 days.....	$5\frac{1}{4}$ @ $5\frac{1}{2}$
3, 4, 5 and 6 months.....	$5\frac{1}{2}$ @ $5\frac{3}{4}$

COMMERCIAL PAPERS

Best names, 4 to 6 months.....	$5\frac{3}{4}$ @
Other names, 4 to 6 months.....	6 @ $6\frac{1}{4}$

DISCOUNT RATES FEDERAL RESERVE BANK

Commercial paper, 15 days, 5; 16 to 90 days....	5
Liberty bonds, Victory notes and Treasury certificates of indebtedness, 15 days, 5; 16 to 90 days.....	5

OPEN MARKET RATES

Call loans against acceptances.....	$4\frac{1}{2}$
-------------------------------------	----------------

Prime bankers' acceptances eligible for purchase or rediscount by Federal Reserve Banks. Rates quoted are for discount at purchase.

	Bid.	Asked.
30 days.....	4 $\frac{7}{8}$	4 $\frac{3}{4}$
60 days.....	4 $\frac{7}{8}$	4 $\frac{3}{4}$
90 days.....	4 $\frac{7}{8}$	4 $\frac{3}{4}$
4 months.....	5	4 $\frac{3}{4}$
6 months.....	5 $\frac{3}{8}$	5 $\frac{1}{8}$
Non-member and private bankers, 60-90 days	5 $\frac{3}{8}$	5 $\frac{1}{8}$

LONDON MARKET

Money on the London market was down $\frac{3}{4}$ at 3 per cent.; short bills unchanged at 4 per cent.; three months unchanged at 4 $\frac{1}{8}$ @ 4 $\frac{1}{4}$ per cent.

Gold bullion on the London market down 2d, at 110s 9d. Taking the British Mint's standard of 85s per fine ounce as par, the market quotations would represent a price of 130 1-3 for gold at London. On the same basis the highest London price for gold this year was 136 $\frac{5}{8}$, on Jan. 3; the highest of the period 149 $\frac{3}{4}$, on Feb. 6, 1920.

CLEARING HOUSE EXCHANGES

Exchange of checks at the New York Clearing House, \$617,600,000; balance \$56,200,000; Federal Reserve Bank's credit balance, \$50,400,000; clearings this day a year ago, \$683,553,641.

10. The Retail Dealers in Groceries.—We may take the grocery trade as typical of retail trade. *First*, we will see the different types of stores from which the consumer may get the groceries.

The Grocery-Store.—The typical old-fashioned grocery-store was run by an individual with his own capital with no connection with other establishments. The retailer bought his groceries from wholesalers and jobbers and commission men, and so he forms the last step in the process of getting the goods to the consumer.

The Chain Store.—This is a development of large-scale methods applied to retailing; that is, one organization conducts numerous stores in some particular city or, in the

case of some of the larger chain stores, in many of the cities in the whole country. The advantage which comes from this system arises in connection with the possibility of buying on favorable terms (because of the great quantities purchased) and of standardizing methods of store arrangement and store policy in such a way that the best methods may be used by all of the different stores. Frequently, the chain store buys direct from the producer and so eliminates one step in the process of distribution. Sometimes also the chain stores carry on manufacturing or at least the putting in packages of the products.

Mail-Order Houses.—In addition to the other products, mail-order houses also deal in groceries, and so from these houses customers may provide themselves with certain of the groceries which do not suffer deterioration. Here again the wholesaler or jobber is frequently eliminated from the process, as the mail-order concern may buy direct from the producer.

The Department Store.—In some cases department stores sell groceries. Here an advantage arises from the fact that the large number of different departments are under unified control. The department store often carries on a large business and has the advantage of being able to buy in large quantities.

Co-operative Stores.—A considerable number of the co-operative stores which have been established in this country deal in groceries. Here the advantage is supposed to be gained in cutting down the expense of conducting the business. There is no particular advantage in this country in the purchase of the goods. In England, where the co-operative system has achieved a greater development, the co-operative wholesale societies are conducted for the benefit of the co-operative stores.

Public Markets.—For the sale of vegetables and fruits, very frequently a system of public markets is in existence. In the smaller towns and cities the producers deal directly with the consumers. In the larger cities, the sale in the public market is frequently conducted not by the producer himself but by the middleman who has bought from producers.

The Company Store.—In many coal-mining towns, the coal company keeps a store and, of course, groceries bulk large in the sales. The credit risk is frequently minimized by deducting the amount due at the store from the wages coming to the miner. Frequently the mines are at a distance from trading centres, and so the company stores are a real convenience. However, sometimes they are used as a means of reducing the wages of the miners.

The Retail-Wholesale Store.—This hybrid is usually a transition type. An ambitious retailer starts wholesaling on a small scale; eventually he may give up retailing and devote all of his time to wholesaling, or he may develop a chain of stores. Retailers in the same city do not care to patronize a wholesaler who competes with them.

11. Other Types of Retailers.—Besides the types of retailers who handle groceries, we find other varieties. A local store may be the agent of a manufacturer. This is quite common in clothes and shoes. In the larger cities there has been a growth of specialty stores. These stores handle a restricted line of goods, especially women's clothes. Some manufacturers wish to control their product until it gets into the hands of consumers. In this case they open retail branches. In the selling of milk, we may say that there are wagon retailers, for the bulk of the sales are really made from the wagon. Finally, some retailers deal in bulk in such commodities as coal.

12. **Types of Wholesalers.**—*The General Wholesale Markets.*—In dry-goods, for example, we have a market price which holds in New York and vicinity. This case differs from the preceding cases, because there is no one place where the traders gather, and there are no such clearly established grades. Yet we get a price set for the various articles, uniform enough to justify calling it a market price. The essential feature is that we have competitive groups of buyers and competitive groups of sellers who keep in close touch with what is going on in the market.

Quotations such as the following may be found in the business papers, as the *Journal of Commerce*, and in the trade papers. In less detail, some of the items appear on the financial pages of the newspapers:

CANNED FRUITS

While no less than three steamers are due in New York any time with goodly quantities of canned PINEAPPLE, the spot stocks are very short. The demand all around is reported good with short deliveries of certain classes assured, buyers are taking good quantities of others. There is some activity in APPLES and good sales of CRANBERRY JELLY and SAUCE are reported. The announcement of 100 per cent delivery on PEACHES and PEARS has not weakened the market because of the short surplus.

PEACHES—

Yellow, free—

Std., 2½s. 2 15a..
Choice, 2½s. 2 55a..
Fancy, 2½s. 2 75a..
10s, std. 2 75a..

Yellow, clings—

Std., 2½s. 2 27a..
Choice, 2½s. 2 80a..
Fancy, 2½s. 3 00a..

No. 10s, std. 8 00a..

Choice. 9 00a..

Md., 1919 pk,

No. 3 pies.at 30

No. 10, unpeeled

yellows. 5 70a5 80

APRICOTS (Cal.)—

Std., 2½s. 2 15a..

Choice. 2 40a..

Fancy.at 75

No. 10s. 7 50a8 50

PEARS—		Choice, 2½s.....3	25a3	50	
Calif. Bartlets—		Fancy, 2½s.....	..a3	60	
Fancy, 2½s.....3	26a3	50	Fancy, 3s.....	..a3	75
Choice.....3	00a..		No. 10 sour, pit-		
Standard.....3	00a..		ted.....	..a16	00
10s, choice.....11	25a..		APPLES—		
10s, std.....9	00a9	25	Me., 10s.....5	85a6	00
Kiefer—			Pa., 10s.....	..a..	
Fancy.....1	90a..		N. Y., 10s.....5	25a5	55
Ex. standard.....1	60a..		N. Y., 3s.....2	00a..	
No. 2, fancy.....1	40a..		RASPBERRIES—		
No. 2, std.....1	25a..		Std., 2s.....2	60a..	
PINEAPPLES—			Xstd., 2s.....5	00a..	
No. 1 grtd.....	..a1	30	No. 10 ex.....1	21a..	
No. 2 grtd.....	..a1	85	No. 10 watr...11	50a11	75
2½s.....	..a2	25	RHUBARB—		
No. 10 pie.....5	00a5	25	No. 10.....4	25a4	75
Hawaiian—Sliced—			STRAWBERRIES—		
Ex., 2s.....2	40a..		Spe ex No 2.....3	00a3	25
Ex., 2½s.....2	85a..		do h'y syr.....2	75a3	00
No. 10s.....10	00a..		10s, std., in water 9	00a..	
Grtd, 2s, std....1	80a1	83	BLUEBERRIES—		
Grtd, 2s, ex....1	90a1	95	Maine, 2s.....2	25a2	50
Std., 2½s.....2	35a2	40	Maine, 10s....12	50a13	00
CRUSHED—			BLACKBERRIES—		
1 flats.....1	50a..		Ex. std., 2s.....2	50a..	
2 talls.....2	35a..		Fancy, 2s.....2	75a..	
2½ talls.....3	00a..		GOOSEBERRIES—		
10s, std.....6	75a..		2s, std., in water..1	50a1	75
CHERRIES—			10s.....8	50a..	
Cal., 2½s, std....2	85a2	95			

GENERAL CLOTH TRADING AND PRICES VERY STEADY

Trading in the cloth markets was quite general and very steady with no one division leading in special interest. Print cloths were sold on a basis of 7½c for Southern 60x48s and 7¾c Eastern; 38½-inch 64-x60s, 9c; 68x72s, 10½c; 72x76s, 11½c; 80x80s, 14c; 27-inch 9 yards, 5¼c, second hands and 27-inch 7.60 yards, 6¼c.

Sheetings sold in moderate quantities on a basis of 10c for 4-yard 37-inch 48-x48s; 11¼c for 4-yard 56x60s,

and on net for 4.70s. Bag manufacturers are still open to take in small lots, especially when concessions from ruling quotations are made.

The improved demand for fine combed yarn goods was continued. Some of the converters are picking up any desirable lot of medium or low grade goods on the theory that they are certain to be wanted when the full effect of very high prices on the finer qualities begins to be felt. It is also stated that the demand for finished goods is broadening and converters are providing themselves with cloths they may be able to sell at an attractive price for some time to come.

Continued improvement is reported in tire fabric demand, nothing in the way of large business being done, but a definite demand from concerns that have been out of the markets for months.

DRILLS

Width.	Wght.	Price.	Width.	Wght.	Price.
37	3.50	11 $\frac{1}{2}$	30	3.00	12
37	3.00	12 $\frac{1}{2}$	30	2.85	12 $\frac{1}{2}$
37	3.95	10 $\frac{3}{4}$	30	3.25	11 $\frac{1}{2}$

PLAIN CLOTHS

Width and weight.		Count and price.		Width and weight.		Count and price.	
25	10.35	56-44	4 $\frac{1}{2}$	38 $\frac{1}{2}$	6.25	60-48	7 $\frac{1}{2}$
27	9.50	44-44	5	38 $\frac{1}{2}$	5.35	64-60	9
27	9.00	56-52	5 $\frac{1}{2}$	39	4.75	68-72	10 $\frac{1}{2}$
27	7.60	64-60	6 $\frac{1}{4}$	39	4.25	72-76	11 $\frac{1}{2}$
38 $\frac{1}{2}$	8.20	44-40	6	39	4.00	80-80	14
39	6.60	56-44	7	44	6.40	48-48	7 $\frac{1}{2}$

SHEETINGS

36	3.00	48-48	12	36	6.15	44-40	6 $\frac{7}{8}$
36	4.00	48-52	10 $\frac{1}{4}$	37	4.00	48-48	10 $\frac{1}{4}$
36	4.70	48-52	9	40	2.85	48-48	12 $\frac{3}{4}$
36	5.00	48-48	8 $\frac{1}{2}$	40	3.60	56-60	12 $\frac{1}{2}$
36	5.50	48-40	7 $\frac{3}{4}$	40	4.25	44-40	9 $\frac{3}{4}$
31	5.00	48-48	8 $\frac{1}{4}$				

SATENS

37 $\frac{1}{2}$	4.90	64-80	11	39	4.00	64-112	14
37 $\frac{1}{2}$	5.25	64-72	10	39	4.20	64-104	13
39	3.50	72-120	16				

TWEILLS

39	4.50	68-76	11 1/4	39	5.10	64-64	9 1/2
39	4.00	68-76	11 1/4	39	3.10	96-64	17

PLAIN COMBED CLOTHS

30	11.35	88-80	12	40	8.50	88-80	16
40	9.00	76-72	14 1/4	40	7.00	96-100	18 1/2

PAJAMA CHECKS

36 1/2	4.70	72-80	11 1/2	36 1/2	5.75	64-60	10
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FINEST GRADES OF FRESH BUTTER SOLD BETTER AND TONE FIRMER

BUTTER.—Receipts yesterday, 5,748 packages. As most of the jobbers held off the latter part of last week, they were needing fair supplies of fresh stock yesterday, and business generally was better. Demand, however, was confined closely to fine and fancy grades of fresh creamery; these advanced about 1/2c without pulling up the other qualities to any extent. Fresh creamery extras sold at 43 1/2 a 44c, more generally the latter figure where inspected goods were demanded, and the higher scoring lots brought 44 1/2 a 45c. Marks just under extras sold better and brought 42 1/2 a 43c, but all other grades of fresh creamery, including whole milk and centralized, were without improvement. The accumulations have been very heavy of late, and buyers showed very little interest. Effort was made to draw orders from the East, but that source of outlet seemed to be pretty well filled for the moment. A lot of stock was seeking outlet from 35c to 38c, better qualities at 39c to 41c. Unsalted creamery very slow, and prices favored the buyer, with the exception of fancy stock, which firmed up a little in sympathy with the best salted. Ladles had quiet jobbing sale at unchanged prices. Packing stock inquired for and firm.

BUTTER—

Creamery—

Higher than extra	44 1/2 a 45
Extras	44 a . . .

Firsts—

(90-91 sc.)	39 1/2 a 43
(88-89 sc.)	36 1/2 a 38 1/2
Seconds	33 1/2 a 35 1/2
Lower gr'ds	32 a 33

Unsalted—		Ladles—Fresh—	
Higher than extra.	46 a46½	Extras.....	32 a32½
Extras.....	44½a45½	Firsts.....	29½a30½
Firsts.....	36½a43	Seconds.....	28 a28½
Seconds.....	34 a36	Poorer.....	26 a27
State Dairy—		Packing Stock—	
Finest.....	42 a43	Fresh—	
Good to pme.....	37 a41	No. 1.....	28 a..
Com. to fair.....	30 a36	No. 2.....	27 a..
Renovated—		Poorer.....	25 a26½
Extra.....	..a....		
Firsts.....	..a....		

THE RICE MARKET

The rice market is firm with trading nominal. Foreigns are strong due to the rise of exchange, and domestics, small in spot stocks, continue at full prices.

Domestic—		Japan—	
Screenings.....	3¼a..	Fancy.....	5 a5¼
Second head.....	3¾a4	Choice.....	4½a4¾
Medium h'd.....	4¾a5	Foreign—	
Fancy head.....	6¾a7½	Siam, usual.....	..a4¼
Choice head.....	5¾a6½	Saigon—	
Blue Rose—		No. 1.....	..a4½
Fancy.....	5½a5¾	No. 2.....	..a..
Choice.....	5 a..	Rice Flour.....	..a3¾

Spot stocks mean amounts actually on hand in this market in distinction from supplies situated in other markets or in producing centres.

General Wholesalers.—Some wholesalers, especially of groceries and dry-goods, attempt to supply all of the needs of stores in those lines. They assemble the goods from manufacturers or producers and sell them in the quantities desired by the retailers. Often they finance the retailer.

Specialty Houses.—In recent years there has been a growth of houses that specialize in some particular part of a general line, as knit goods. This is an example of division of labor in the marketing field. Perhaps the movement is

due partly to the fact that it takes less capital to start a specialty house than a general wholesale house.

Catalogue Houses.—Just as we have mail-order houses in the retail field, we find them among the wholesalers. They aim, in general, to replace the travelling salesmen by the catalogues. It will be interesting to see how the contest between the written and the spoken word comes out.

Commission Houses.—The commission house takes charge of the sale of goods, and for its services deducts a commission. These houses are found in central markets. They often handle goods shipped for considerable distances. It is this factor of distance, the intermittent and uncertain character of the supply, and the fact that the goods are perishable, which make it convenient to use the commission house. Thus, fruit growers at a distance could not afford to go to market with each shipment of fruit. It is impossible to foretell the quantity or quality of the crop, so contracts for future sale are difficult to make. If the supply were steady, permanent arrangements could be made. Often the season lasts only for a week or two. If the goods were not perishable, other methods might be used.

The demand for such perishable fruits and vegetables is rather inelastic. Thus, if shipments happen to be bunched, the returns may be disappointing. The long distance between the shipper and the commission merchant gives chance for disputes as to the condition of the goods on arrival and as to the adequacy of the price which was received. This condition has often resulted in co-operative marketing.

Co-operative Marketing.—There are many forms of co-operative marketing. In one the growers, say of berries,

in a given region will form an association. This association will represent the growers in their efforts to obtain good freight rates. It will also have a representative in the big central market for the crop. Sometimes this representative takes charge of the sale of the goods shipped. Sometimes the goods are still handled through the commission men, but under the watchful eyes of the association's representative.

The farmer's co-operative grain-elevator is another important type of co-operative marketing enterprise. The marketing of grain involves making provision for storage. To remedy abuses which grew up when the only available elevators were under semimonopolistic control, the farmers decided to run their own elevators and do their own marketing.

Perhaps the largest co-operative marketing enterprise is the California Fruit Growers' Exchange. The California fruit is marketed at great distances from the places where it is grown. Most of it must be sent in refrigerator-cars. The Fruit Growers' Exchange takes entire charge of the crop, grading and packing the fruit and seeing that it is properly iced. They have agents in all of the principal cities in the East and Middle West who watch the supplies of California fruit in their localities. The fruit is started from California without any destination being specified. When the cars reach some place, such as Kansas City, they are consigned to the cities which, according to the reports of the agents, offer the most favorable market for the fruit.

Brokers.—The term broker is applied to men who perform various functions. There is the broker who is a member of some exchange and executes orders to buy or to sell for any one who wishes his services. One common use

of the term refers to the man who brings buyer and seller together. We may say that the lack of knowledge of the two gives the broker a chance to function and, incidentally, the chance to make a profit. Often we think of a broker as one who buys and sells at the same level of marketing; for example, buys from one wholesaler and sells to another wholesaler. In this way he serves to correct maladjustments of supply.

Auctions.—The auction is used as a wholesaling device as well as to sell goods to consumers. The use is commonest in the sale of fruits and carpets.

Wholesale Branches.—The meat-packers have a special marketing problem. They are dealing with a very perishable product. Fresh meat must be sold quickly. A system of branches selling direct to retailers has been developed. Thus, on one hand, a continuous supply is furnished and, on the other hand, overstocking is avoided.

13. Wholesale Consumption.—In general, materials to be used in production of consumable goods are handled in slightly different fashion from goods to be sold to consumers. Different lines are handled in various ways.

Direct Sale.—Coal and iron are frequently sold by the producer directly to the user. The following market report indicates the type of factors which enter into the price-making:

POSITION OF PIG IRON CONTINUES TO IMPROVE

ACTIVITY IS NOT MARKED BUT DEMAND STEADILY INCREASES—LOCAL SALES LAST WEEK 4,000 TONS IN SCATTERED LOTS OVER 4TH QUARTER

Demand for pig iron continues to improve and, while there is no marked activity, the market is stead-

ily growing stronger and the undertone is decidedly more healthy. During the past week sales of foundry grades in the local district aggregated about 4,000 tons of various descriptions in lots ranging from carloads to 500-ton lots. Most of the business placed was for delivery over the balance of the year, which in itself is an indication of growing confidence that the low price levels have been reached and that the tendency from now on is likely to be upward. Inquiries received by local selling agents cover requirements of some 3,500 tons, also in scattered lots, the largest of which is for 900 tons for prompt shipment. As the season advances it is becoming more evident that stocks in consumers' hands have dwindled considerably and there is every indication that demand will show a steady improvement from now on. Business for the most part has been confined to Pennsylvania, New Jersey and New York deliveries. Some little demand has come from Boston, but New England requirements as a whole have been relatively light. September returns are expected to show an increased production over August, which in turn had registered an improvement over July. One Susquehanna furnace has been added to the three now in operation.

The meltings from all accounts have not increased materially, though on the whole there has been no falling off. The improvement in demand is attributed almost solely to the steady decline in the amount of stock carried by the foundries, and as the current shipments are known to be in excess of the furnace output the statistical position of the market is decidedly improved, with the result that prices are more firmly held than ever. Eastern Pennsylvania and Buffalo iron is quoted at the basis of \$20 to \$21 at the furnace. This gives the former the advantage in the delivered price, but at least some Buffalo iron has found its way to the local market.

PIG IRON, FUEL AND ALLOYS

No. 2 Pittsburgh.....	\$22	96a	23	96
No. 2 X Philadelphia.....	21	34a	22	26
No. 2 Valley, furnace.....	21	00a	22	00

No. 2 East Pennsylvania.....	20 00a	21 00
No. 2 Southern, Birmingham.....	19 00a	20 00
No. 2 Virginia, New York.....	28 16a	29 10
No. 2 Chicago.....	22 00a	....
Basic Valley, furnace.....	19 25a	19 75
No. 2 Buffalo.....	20 00a	21 00
Bessemer, Pittsburgh.....	21 96a	22 46
Malleable, Pittsburgh.....	22 46a	22 96
Malleable, Chicago.....	22 00a	....
Malleable, Valley.....	20 50a	21 00
Malleable, Buffalo.....	22 00a	....
Gray forge, Pittsburgh.....	21 96a	....
L. S. Charcoal, Chicago.....	30 00a	....

Domestic Ferro-manganese—

Prompt delivery, 78% to 82%.....	60 00a	63 00
Spiegeleisen, 20%, furnace.....	25 00a	26 00
Ferro-silicon, 50%, delivered.....	60 00a	65 00
Bessemer ferro-silicon, 12%, blast furnace.	43 10a	....

COKE—

Connellsville, furnace.....	3 25a	3 50
Connellsville, foundry.....	4 25a	4 75
Wise County, furnace.....	5 25a	5 75
Wise County, foundry.....	6 00a	7 00
Pocahontas, furnace.....	8 00a	8 50
Pocahontas, foundry.....	8 50a	9 50
New River, furnace.....	6 50a	7 50
New River, foundry.....	8 00a	8 50

OLD MATERIALS.—The following prices are current in New York:

Rerolling rails.....	\$11 50a	12 00
Relaying rails (nominal).....	37 50a	40 00
Old car wheels.....	11 00a	11 50
Steel car axles.....	11 00a	11 50
Iron car axles.....	18 00a	19 00
Heavy melting scrap.....	7 00a	7 50
No. 1 yard, wrought.....	11 50a	12 00
Iron and steel pipes.....	8 50a	9 00
Machine shop turnings.....	3 50a	4 00
Cast borings.....	5 50a	6 00
Stove plates.....	9 50a	10 00

The need for continuity of supply is one of the factors which has led to the integration of industry.

Things such as engines and cars are usually sold direct

from maker to user. There are comparatively few works which make them and comparatively few users. The bargaining process is carried on between the sales agent of the maker and the purchasing agent of the user.

Organized Speculation.—The bulk of the grain and cotton is sold through exchanges. As was explained above, this is made possible by grading the commodities. The presence of a large body of speculators gives a continuous market and steadies the price throughout the year.

Raw-Material Merchants.—Because raw wool cannot be graded so satisfactorily, it is usually handled by dealers and sold by sample rather than by grade.

Auctions.—Besides the use of auctions mentioned above to get goods into the hands of retailers, they are used in handling raw materials. Thus, much of the tobacco-leaf is sold at auction to the manufacturers of tobacco products. Raw furs are also sold at auction.

14. Organizations for Marketing in Foreign Countries.—For a long time our exports consisted largely of agricultural products. We may say that the foreigners took the initiative in buying our cotton, our wheat and flour, our meat. More recently some of the trusts have developed a foreign trade, which has involved more activity on our part. Thus, the Standard Oil Company, the International Harvester Company, the Singer Sewing Machine Company, the United States Steel Company, and others, either directly or through subsidiaries, sell goods in many foreign countries. They are big enough to undertake alone the expense of foreign branches and agents. Smaller manufacturers could not afford to do this. By the Webb Act, combinations for marketing abroad are permitted. Thus, it is contrary to the anti-trust laws for the manufacturers

to combine to exploit the home market, but it is perfectly legal for them to combine to exploit the foreign market.

15. Exercises.—1. (a) What caused the separation of producer and consumer?

(b) What are the functions of the merchant? Illustrate how these functions arise from the separation of the producer from the consumer.

2. Why cannot a merchant make the same percentage of profit on the turnover of all the articles he sells?

3. Get a copy of the Bulletin of the United States Bureau of Labor Statistics on Wholesale Prices. Make a list of the markets for the various articles. List the sources of information.

4. What functions of the middleman were performed even in a simple organization of society? Show the logical relationship among the following: trade, differentiation in production, territorial division of labor, transportation, middlemen.

5. How can a New York City store afford to deliver goods in Plainfield, New Jersey (about twenty-five miles from New York City)?

6. (a) Enumerate the activities of middlemen in the distribution of butter. Classify these activities as to whether they are productive or merely acquisitive.

(b) Does it justify the continuance of the middleman to explain that he performs functions?

7. Account for the recent tendency of stores to take on other lines, *e. g.*, drug-stores.

8. In how many different kinds of stores is candy sold?

9. Does it ever pay a store to carry goods, say postage-stamps, which it sells at cost? Why?

10. (a) Is the added expense of package goods justified? Defend your answer.

(b) How do package goods make possible a simplification of marketing?

11. Why is grading so important in the marketing of wheat?

12. What would be the effect of a decline in illiteracy on the methods of marketing used and on the desires of consumers?

13. Is it good salesmanship to force a sale on a customer?

14. Does advertising add to the price paid by the consumer of, *e. g.*, Ivory Soap? Wrigley's Gum? Ford automobiles? Heinz 57 Varieties?

15. What difficulties would there be in the use of the parcel-post as a means of direct dealing with farmers to get butter, eggs, potatoes, and apples?

16. Why is the principal wheat market in Chicago, when there are other cities which actually handle more wheat?

17. Why do the prices of the different grains move in the same direction?

18. List the factors which influence the price of wheat futures.

19. Why does not the price of flour follow the price of wheat just before a harvest?

20. Is there an analogy between Blue Sky Laws and Pure Food Laws? Why or why not?

21. Is there anything which corresponds to fashion in the demand for securities?

22. What causes the greater fluctuation in the prices of speculative stocks as compared with investment stocks?

23. Why is the New York Stock Exchange so much bigger than any other stock exchange in this country?

24. Why does the public condemn the bears more than the bulls?

25. Make a list of five things ranked according to their salability. Which would the bank prefer as collateral for a loan?

26. Explain the difference in the function of speculation in the case of grain and in the case of stocks.

27. How would 10¢ street-car fare affect retailing in New York City?

28. (a) What effect does the telephone have on the location of a store?

(b) Do wholesale and retail houses require the same type of location?

29. What is the difference between the department store in the city and the general store in the country town?

30. Compare the efficiency of the co-operative retail store and the chain "cash-and-carry" store.

31. Why does not the department store drive out the single-line store?

32. How can the individual retailer survive the competition of the chain store?

33. Discuss the possibility of developing the mail-order house for local trade.

34. What advantage, if any, has the specialty store over the department store?

35. Suppose a new method were devised which would permit milk to be kept indefinitely; how would it affect the marketing of milk?

36. What are the advantages and disadvantages of auctions?

37. Is co-operative marketing advantageous or disadvantageous to the consumer?

38. What was the marketing problem back of the practices in the building-supply combinations exposed by the Lockwood Investigation in New York City?

39. How does the purchase of a steam-engine differ from the purchase of coal?

40. How do interlocking directorates connect up with marketing problems?

41. Why is there considerable room for bargaining in sales for wholesale consumption?

CHAPTER IV

CYCLES IN TRADE AND INDUSTRY

1. The Course of Cycles. 2. The Periodicity in Business. 3. Mitchell's Theory of Business Cycles. 4. Rising Prosperity. 5. The Development of Stresses. 6. Crisis and Panic. 7. Depression. 8. Mitigating the Crises. 9. Exercises.

1. The Course of Cycles.—Our modern complex industrial system is characterized by a pronounced variation in activity. At times we have prosperity, every one is working, industries are being expanded and goods are being produced in great quantities. Then we have crises. Prosperity is checked, pessimism replaces optimism, the industrial machine seems to falter and refuses to function. Sometimes these crises degenerate into panics. The monetary system, the banking system, and the credit system all fall under suspicion. The confidence which is necessary for their working appears to be lost. After the crisis or panic comes depression. It is often called "hard times." Production is slackened, factories are idle, and men are out of work. After a while prosperity develops again and the cycle repeats itself.

2. The Periodicity in Business.—In the United States we have had crises of greater or lesser severity in 1814, 1818-1819, 1837, 1857, 1866, 1873, 1884, 1893, 1907, 1914, and 1920. In England, the crises in the same period came in 1810, 1814, 1819, 1825, 1837, 1847, 1857, 1864-1866, 1882, 1890, 1893, 1907, 1914, and 1920. We notice that there is a rough but not exact correspondence. Sometimes we find a crisis in one country without a corresponding one in the other country. There are also differences in inten-

sity in the two countries. Ten years seems to be the commonest interval, but it does not occur in a majority of the cases. By using refined mathematical methods, Professor H. L. Moore finds a cycle of thirty-three years with a minor cycle of about eight years superimposed.

We may turn next to statistics which show the considerable changes which take place in industry and in various markets.

The monthly letter of the Federal Reserve Bank of New York for August, 1921, gives the following table showing a calculation in percentage figures of the production in this country of eleven important commodities in each month of this year up to June. To arrive at a fair estimate of normal production a statistical analysis has been made of all available figures for previous years, and allowances made for normal growth. The percentages are as follows:

(Normal Production Equals 100)

	Jan.	Feb.	Mar.	Apr.	May	June
Anthracite coal mined..	101.3	110.8	93.4	98.2	88.9	94.1
Bituminous coal mined	73.6	64.0	57.4	64.0	67.3	65.9
Pig-iron production...	70.0	59.1	44.4	33.2	33.7	30.8
Steel-ingot production.	58.3	48.8	40.0	30.9	31.9	26.5
Tin deliveries.....	30.1	30.7	32.6	30.8	23.7	30.8
Cement production...	77.8	70.3	88.2	87.7	82.8	83.6
Cotton consumption...	54.8	66.7	66.1	63.6	67.1	72.5
Wool consumption....	55.4	67.1	87.8	98.4	105.2	106.6
Sugar meltings.....	53.6	77.9	120.0	93.9	80.3	79.2
Wheat flour milled....	79.6	80.0	107.9	113.7	104.6	116.1
Meat slaughtered.....	88.2	92.2	91.9	101.1	96.9	102.0

The following table, prepared by Bradstreet's, gives in percentages the decreases (or increases) of various things which indicate activity in business. July, 1921, is compared

with July, 1920, and the seven months, January to July, 1921, is compared with the same period of the year 1920.

	December from Year Ago	
	July	7 Months
Price index-number, August 1.....	41.2	* 39.2
Bank clearings, United States.....	25.1	23.1
New York City.....	22.5	22.1
Outside New York.....	28.0	24.4
Failures (number).....	† 150.0	† 198.0
Failures (liabilities).....	† 37.3	† 195.2
Stock sales.....	25.0	24.7
Bond sales.....	† 2.0	21.2
Incorporations.....	77.7	46.9
New capital issues.....	29.2	20.9
Municipal-bond sales.....	† 17.6	† 39.8
Pig-iron production.....	71.8	51.4
Lake Superior iron-ore shipments.....	58.0	60.0
Commerce Sault Ste. Marie Canal.....	29.7	25.2
Mail-order business (two houses).....	38.7	37.0
Fire losses.....	† 32.7	† 4.5
Anthracite-coal shipments.....	14.5	† 1.0
Bituminous-coal production ‡.....	21.4	24.1
Anthracite-coal production ‡.....	8.4	† 2.5
Merchandise imports.....	66.8	57.0
Merchandise exports.....	50.5	41.6
Building (Bradstreet's report).....	† 32.4	10.7
Steel-ingot output.....	71.3	51.9
U. S. Steel Orders, July 31.....	56.5	....
Railroad earnings, gross §.....	2.7	1.4
Railroad earnings, net §.....	† 228.7	† 48.0

* Average for eight months.

‡ Week and season ending July 30.

† Increase.

§ May and five months.

3. Mitchell's Theory of Business Cycles.—The old explanations of crises proceeded on the assumption that prosperity was the usual or normal state of affairs and that the crisis was due to some extraordinary event such as a crop failure, some great disaster such as a fire, flood, war. Each crisis thus had a different explanation. The newer explanation holds that our economic organization is so put to-

gether that we must expect rhythm in business; a more or less regular succession of prosperity and depression; of rising and falling prices. No mathematical exactness is expected in the periodicity. A favorable or unfavorable event may prolong or shorten the period of prosperity or depression. Thus, a good crop may shorten the period of depression.

Many men had framed explanations to account for this recurrence. Most of these explanations picked out one factor and said it was responsible. Thus, Professor Irving Fisher blamed the crisis on the lagging adjustment of the rate of interest in times of rising prices.

The theory now generally accepted was worked out by Wesley C. Mitchell, the American economist. He made an exhaustive study of the facts concerning cycles in business and endeavored to combine the good in all of the theories which had preceded his into an explanation which would square with the facts.

His theory aims to describe and account for the variations of activity that occur in business. The analysis is from the point of view of the entrepreneur, whose activities are controlled by costs, what he can get for his goods, the volume of sales, the profit margins, and both short and long time credit arrangements.

4. Rising Prosperity.—Mitchell chooses to start with the situation after a period of hard times or depression. Prime and supplementary costs of manufacture have declined. Stocks of goods in the hands of both wholesalers and retailers have become depleted. The liquidation of business debts which followed the crisis has been carried out. Interest rates are low, the banks have abundant reserves, and so are in a position to increase loans.

The situation with respect to both depleted stocks of goods and the ease of securing money at low-interest rates encourage investors to begin the purchase of corporation securities. Conditions are ripe for a renewal of business activity. Sometimes a propitious event starts the upward movement; but even without such an event, improvement takes place.

An increase in the demand for commodities in any one field brings increases in demand in those industries which furnish raw materials and supplies to the industries which handle the increased output, also to the industries which deal in complementary or substitution goods and to those industries which supply the personal needs of the workers in the flourishing industries. Thus, at the outbreak of the war in 1914, there was a demand for food and munitions. The demand for munitions caused a demand for iron, steel, and machine-tools. This caused a demand for iron ore, coal, and limestone. The workers in these industries demanded more food, clothes, and better houses. The increased demand for butter caused oleomargarine to rise in price. Railroads feel any increase in business since it means more transportation of raw materials and finished products.

In the matter of distribution of consumable goods, the sales of retailers cannot be increased much without causing buying from jobbers, and then the jobbers must soon buy from manufacturers. Each industry that is stimulated thus stimulates others. The increased railroad transportation causes increased demand for steel from the railroads. After this process has been going on for some time, the spirit of the business man changes from pessimism to optimism.

In the early part of the period of stimulated production

there are certain factors which tend to keep prices down. As the scale of production increases, the cost per unit lessens. The buyers are in a strategic position because for a long time orders have been scarce. Depression frequently breaks up combinations in business so that competition is keener. But prices eventually rise when the volume of business gets to that place where additional orders would require overtime work and new equipment. Combinations are re-established or new ones are formed, and buyers become anxious to purchase goods. Idle factories renew operations; others extend their plants, and new factories are started to provide for the rapidly increasing volume of sales.

The rise in price of an article at any one stage of production raises the price at all subsequent stages, and the bidding of the manufacturers for raw materials passes back the rise to the earlier stages. The rise in prices is not even. Retail prices rise less quickly and to a less extent than the wholesale prices of the same commodities. This is explained because custom is a more important factor in setting retail prices, and also some of the expenses of the retailers do not rise as rapidly as the wholesale prices of the products. The wholesale price of finished commodities rises less rapidly than the price of the partially manufactured, and these in turn less rapidly than the price of raw materials. The explanation is similar to the case of retail prices since some of the manufacturing expenses do not rise as rapidly as the raw material. The wholesale price of manufactured goods used by consumers rises more quickly but to a less extent than the wholesale prices of manufactured goods used by producers. The wholesale prices of raw mineral products rise more rapidly than the wholesale prices of raw farm or forest products. This is due to the fact that

mineral production is more nearly under the control of business men. The other industries are affected by the seasons. Wages rise less rapidly than wholesale prices. This is due in most cases to the fact that the workers are not so well organized as the parties dealing in the other markets. Many of the laborers may be working under contracts which run for a considerable time. Also the full or over time employment gives a greater total wage although the wage rates may not be increased.

Discount rates do not rise at once, but very soon the increased activity along with the higher prices brings an increased demand for loans that causes an increase in rates. Profits in general increase, because some of the costs rise less rapidly than the increase in the selling price of the product. With the general increase in the amount of profits, the prices of stocks early rise because dividends are assured and perhaps the rate is increased. The rise in stocks is likely to come early because the stock-brokers discount the anticipated rise in earnings. The amount of money invested in business increases because the prospect of profit leads to the extension of old enterprises and the starting up of new ones. With the growth of business confidence, investors are no longer so insistent on high-grade bonds and are willing to take more risks in stocks.

5. The Development of Stresses.—This process of increasing prosperity involves many difficult problems. Will the demand for goods keep pace with the supply even at advanced prices? Will the cost of materials increase less rapidly than the selling price? Will the money incomes increase as rapidly as the cost of living? Will the bank reserves be ample to supply the increased banking liabilities? Prosperity inevitably brings a crisis. Supplemen-

tary costs, such as rent, interest, and supervision soon begin to increase. Then contracts providing for goods or services at a low cost expire and the officials get higher salaries. Then the plant must be enlarged. The prime costs, such as labor and materials, have been increasing right along. Raw materials are more expensive.

With respect to labor, there is a double increase in cost. Wage rates are advanced and the average efficiency of labor decreases. This is due partly to the taking on of less skilful men and partly to the lessening of discipline and partly to overtime work. The rates on bank loans gradually increase. This is an important item in a great many industries where the considerable part of the extension is carried on with borrowed capital. The business management becomes less efficient because the manufacturers are overrushed in increasing production. They do not secure the fullest utilization of material and labor. They do not wish to change their processes or methods of organization because the delay would result in decreasing production. The investment market soon develops a shortage of capital. Business men have been putting money back into their own business. Others who have been paying high prices for various products do not have a surplus to invest. Thus industries which manufacture equipment for other industries are often first hit. For a long time they were unable to supply the demands of those who wanted to get new equipment and perhaps to increase their plants. As soon as the demand for commodities falls off the demand for equipment to make them also falls.

Tension develops in the short-time money market. Many have extended their business operations on borrowed funds, and when a check comes to business prosperity they

find it necessary to continue their loans or even to increase them in order to protect their operations. The upward movement of prices does not affect all industries equally and cannot continue indefinitely. Certain prices are set by public regulation, such as the fares on street-cars. Some are set by contracts and some set by custom. The increased capacity of the various enterprises results in a larger volume of goods. This larger volume ordinarily cannot be sold at the old price. Whenever the construction and work stop, orders for material and supplies fall off, and this causes a decrease in the prices.

6. Crisis and Panic.—When the prices of a finished product have stopped rising more rapidly than the cost, profits decline and frequently some particular industry will be particularly hard hit and will get into difficulty. Sometimes an unfavorable event, such as crop failure, political disorder, uncertainty about monetary standards, the outbreak of war, prices in foreign countries, give a start to liquidation. Liquidation when once started spreads from one enterprise to another, from one trade to another, from one place to another. The debtor in trying to meet his obligations may attempt to get some one else to lend him, may put pressure on those who owe him money, may offer inducements to settle to those who owe him amounts not yet due, may sacrifice for cash the goods on hand, and may sacrifice securities or other property he holds. Any of these methods make the situation more difficult for others. The demand for loans becomes very great because those who will need money in the future add their demand to those who need money at once, because they wish to make sure that they will have the funds when they need them in the future.

In the United States, before the Federal Reserve Act, this condition easily developed into a panic. The failure of business concerns resulted in bank suspensions or failures. The market for loans and investments became demoralized. Specie payments were suspended. Domestic exchange did not function in its ordinary way. Collections became slow, prices of commodities fell rapidly. The fall in prices reverses the situation which we saw in the rise in prices. In other countries with central banks, and in the United States since we have the Federal Reserve System, this short bank phase of panic is replaced by what is called a crisis.

7. Depression.—Industries gradually readjust their prime costs because materials fall in price, wages are reduced, and interest rates are lowered. Supplementary costs for a while increase because the volume of business is less. But in many cases an insolvency brings about a permanent reduction of fixed charges. In many cases the big values of appliances and equipment may be written down even though the company is not reorganized. New men buy old enterprises at lower cost, old loans are renewed at lower rates, new enterprises are started with low prime costs due to the improvement in the process or in the machinery. The physical volume of business after certain periods shows increase because the accumulated stocks of goods are gradually disposed of. Goods used by consumers and producers wear out and must be replaced, population increases, and in the later stages of depression there is a demand for production. Finally, we get to the point where we started, which may be called the end of liquidation.

8. Mitigating the Crises.—Some people are in favor of scrapping our whole economic system because of depres-

sions. Most economists would want to be very sure that what was put in its place would be better. They would retain our present economic order but attempt to prevent the great variation between prosperity and depression.

One great advance has already been made in this country. Formerly, because of our rigid banking and currency system, the crisis usually became a panic. The panic caused wide-spread ruin, many failed who should have been saved. The derangement of industry was greater than it should have been, and so the period of depression was prolonged. The Federal Reserve System has put an end to this condition. The banks can now meet all of the legitimate demands for credit or currency in time of crises.

Possibly, the Federal Reserve Board may attempt to control credit expansion through the control of the rate of discount. There are three problems. In the first place, can the Federal Reserve Board control the rate of discount? At the start they could not because the banks did not need to rediscount at the Federal Reserve Banks. During the war they could control the rate, for nearly all of the banks were rediscounting. Because the Treasury Department wished low rates for government financing, the Federal Reserve Board did not try to raise rates. There is still a question as to how much rediscounting the member banks will do in normal times.

The second question is whether the Federal Reserve Board, even if they had the power, would wish to exercise the control. We can imagine the outcry from interested business men if the Federal Reserve Board announced that business was in danger of overexpansion and that an attempt would be made to check the expansion by raising the discount rate. Congress would probably intervene.

Most business men are not yet ready to give the control of prosperity into the hands of any board.

The third question is still more fundamental. How effective is raising the discount rate in checking expansion? Interest is only one of the costs of doing business and in many cases, a minor one. In the case of dealing in stocks, a high call rate in 1920 did not check speculation. The chances for profit were so great that the men were willing to pay the high call rate. Obviously, the problem is one of checking certain overexpanded industries. There is danger that the increased interest rate will hit the conservatively run industry. The speculative ones are either able, because of large profits, to pay the higher rate, or at least they are willing to take the chance. In the end, we shall probably be forced to fall back on the judgment of the local banker. He should be able from his knowledge of the borrowers to curb the ones who wish to over-expand.

One proposal attacks the problem of unemployment in the period of depression. It is suggested that government work and public improvements, so far as possible, be done in periods of depression. Often in periods of prosperity the government adds its demand to the other demands and so helps in the expansion. Of course, this plan has its limitations. Much government work and many public improvements cannot well be postponed. Then again, all who are out of work could not be given work at such enterprises. Naturally, the physically strong could do common labor, but that would hardly be satisfactory.

In the chapter on Social Insurance is discussed the problem of providing insurance for unemployment.

Another suggestion is that business men should be educated in the knowledge of the business cycle. Business forecasting should be developed in such a way that the business man, knowing what was about to happen, could be prepared for it.

9. Exercises.—1. (a) Distinguish between a panic and an industrial depression.

(b) Were there panics under the manorial system in England?

(c) Trace the connection between our present economic organization and the existence of crises.

2. To what extent could we have crises if we did not have a credit system?

3. Illustrate from the clothing industry the interdependence of modern business.

4. (a) How may a boll-weevil pest in the cotton-crop of Texas affect the production of woolens?

(b) Show how an automobile manufacturer is affected by the fortunes of his customers, his competitors, and those who sell supplies to him.

5. List the reasons why credit instruments are not always met at maturity.

6. Trace the interests, in time of depression, of business men, workers, and consumers with reference to the volume of goods to be produced. Is the course which yields the most profit to the business man the one which best promotes the public interest?

7. Trace the effect of price changes on profits.

8. Why do not retail and wholesale prices move together? raw materials and finished products? railroad rates and steel rails? the rate of wages and the cost of living?

9. (a) Why do not prices during periods of prosperity keep on rising indefinitely?

(b) In what way is the movement in the price of a par-

ticular commodity, say cotton cloth, affected by an upward move in the general level of prices?

10. Explain how liquidation spreads.

11. Indicate the problem of the banker in times of prosperity and in times of depression.

CHAPTER V

THE OPERATION OF THE FEDERAL RESERVE SYSTEM

1. The Weekly Statement. 2. Cash Items—Operation of the Gold Settlement Fund. 3. Bill Holdings—Trade Acceptances. 4. United States Bonds and Certificates. 5. The Banking-House. 6. The Collection System. 7. The Capital Liabilities. 8. Deposits—Services for the Government—Mobilization of Reserves. 9. Notes of the Banks. 10. Other Liabilities—Earnings. 11. The Reserve Ratios. 12. The Discount Policy of the Federal Reserve Board. 13. The Aid to Foreign Trade. 14. Summary of Benefits of the System. 15. Exercises.

1. The Weekly Statement.—Perhaps the best way to study the operation of the Federal Reserve System is to consider the statement of resources and liabilities as given out each week.

RESOURCES

2. Cash Items—Operation of the Gold Settlement Fund.—*Gold Coin and Certificates.*—Since the United States is on the gold standard, all obligations of the Federal Reserve Banks are ultimately payable in gold. Thus, we see that gold coin and certificates make a very important item. The certificates, it will be remembered (Turner's Introduction, page 214), are issued by the United States Treasury on the deposit of gold coin.

Gold Settlement Fund, Federal Reserve Board.—In Turner's Introduction, page 300, the workings of the local clearing-houses have been explained. The Gold Settlement Fund of the Federal Reserve Board serves the same purpose. It would be impossible for the representatives of the twelve Federal Reserve Banks scattered all over the country to get together in any one place to offset the

FEDERAL RESERVE STATEMENT.

RESOURCES.

	Sept. 21, 1921.	Sept. 14, 1921.	Sept. 24, 1920.
Gold and gold certificates.....	\$428,036,000	\$446,642,000	\$183,826,000
Gold settlement fund—Federal Reserve Board.....	411,210,000	441,109,000	341,303,000
Gold with foreign agencies.....	.....	.....	111,455,000
Total gold held by banks.....	\$839,246,000	\$887,751,000	\$636,584,000
Gold with Federal Reserve agents..	1,777,529,000	1,694,301,000	1,211,619,000
Gold redemption fund.....	94,353,000	102,449,000	141,632,000
Total gold reserves.....	\$2,711,128,000	\$2,684,501,000	\$1,989,835,000
Legal tender notes, silver, &c.....	151,968,000	150,001,000	161,759,000
Total reserves.....	\$2,863,096,000	\$2,834,502,000	\$2,151,594,000
Bills discounted:			
Secured by U. S. Government obligations.....	495,156,000	503,677,000	1,220,423,000
All other.....	892,081,000	924,485,000	1,484,041,000
Bills bought in open market.....	33,514,000	40,712,000	307,624,000
Total bills on hand.....	\$1,420,751,000	\$1,468,874,000	\$3,012,088,000
United States bonds and notes.....	38,081,000	33,729,000	26,877,000
U. S. certificates of indebtedness:			
One-year certificates (Pittman act)	184,875,000	187,875,000	259,375,000
All other.....	8,571,000	19,803,000	11,248,000
Total earning assets.....	\$1,652,278,000	\$1,710,281,000	\$3,309,588,000
Bank premises.....	29,111,000	28,877,000	15,370,000
5% redemption fund against Federal Reserve Bank notes.....	8,917,000	8,845,000	11,824,000
Uncollected items.....	591,811,000	641,279,000	817,843,000
All other resources.....	16,448,000	16,801,000	6,056,000
Total resources.....	\$5,161,661,000	\$5,240,585,000	\$6,312,275,000

LIABILITIES.

Capital paid in.....	\$103,017,000	\$102,982,000	\$97,401,000
Surplus.....	213,824,000	213,824,000	164,745,000
Reserved for Government franchise tax.....	50,777,000	50,101,000	.....
Deposits:			
Government.....	74,183,000	49,219,000	46,493,000
Member banks—Reserve account.	1,588,209,000	1,631,038,000	1,800,677,000
All other.....	29,218,000	25,574,000	34,910,000
Total deposits.....	\$1,691,610,000	\$1,705,831,000	\$1,882,080,000
Federal Reserve notes in actual circulation.....	2,474,676,000	2,491,651,000	3,279,996,000
Federal Reserve Bank notes in circulation—Net liability.....	103,590,000	103,078,000	214,180,000
Deferred availability items.....	503,174,000	553,235,000	595,342,000
All other liabilities.....	20,993,000	19,883,000	78,531,000
Total liabilities.....	\$5,161,661,000	\$5,240,585,000	\$6,312,275,000
Ratio of total reserves to deposit and Federal Reserve note liabilities combined.....	68.7%	67.5%	*43.6%
Ratio of gold reserves to Federal Reserve notes in circulation after setting aside 35% against deposit liabilities.....	91.8%	89.8%	*74.9%

* Calculated on basis of net deposits and Federal Reserve notes in circulation.

obligations arising in the course of business. So the procedure indicated below is followed. The Federal Reserve Board has a system of private wires connecting all of the Federal Banks and branches. Every business day, each bank and each branch telegraphs in to the Federal Reserve Board in Washington the amount of obligations which are due them from the other banks and branches. Each bank has on deposit in the Treasury at Washington under the control of the Federal Reserve Board a certain minimum amount of gold. The debits and credits of each individual bank are offset by the Federal Reserve Board, and changes in the ownership of this gold are made to settle the balances to be paid or the balances due.

Gold with Foreign Agencies.—As an incident to the transactions with our allies during the war, the Federal Reserve Banks held a certain amount of gold with banks abroad. It will be noticed that no amount is given in the statement for this year.

Gold with Federal Reserve Agents.—We shall see later that Federal Reserve notes may be issued against the deposit of gold with the Federal Reserve agent. This gold is also used as part of the reserve held against the notes and so comes under the heading Resources.

Gold Redemption Fund.—The Federal Reserve notes are redeemable in gold at the Treasury in Washington, so it is necessary for the Federal Reserve Banks to provide the Treasury with gold to meet the demand for redemption. The law specifies that a fund of at least 5 per cent shall be held in the Treasury. This appears in the statement as the gold redemption fund.

Legal Tender Notes, Silver, etc.—Included under this heading are the greenbacks or United States notes, the sil-

ver certificates and silver coin. The variations which have taken place have been partly due to the sale and repurchase of silver under the Pittman Act. The items considered so far make up the total reserves. It will be remembered that the bank must hold 40 per cent of the outstanding Federal Reserve notes in gold and 35 per cent of the deposits in gold or lawful money.

3. Bill Holdings—Trade Acceptances.—*Bills Discounted Secured by Government War Obligations.*—The theory of the Federal Reserve System is that it is to deal in commercial paper. The law provides that money borrowed from the Federal Reserve Banks cannot be used for the purpose of speculation in stocks and bonds. Therefore, notes secured by stocks and bonds as collateral cannot be rediscounted with the Federal Reserve Banks. An exception is made for notes secured by obligations of the United States Government. The idea, of course, is that all the banking facilities of the country should be at the service of the government if necessary. The notes secured by government war obligations are of two general types. *First*, the collateral notes of the member banks secured by government war obligations; this means that the borrowing bank gives its own note to the Federal Reserve Bank and offers as security government war obligations. *Second*, other discounted bills secured by war obligations; this means that member banks take the notes of their customers which are secured by government war obligations and rediscount them with the Federal Reserve Banks.

Bills Discounted, All Other.—This item includes member banks' collateral notes, secured otherwise than by government war obligations. The law provides that banks may borrow from the Federal Reserve Bank and offer as col-

lateral bills and notes which would be eligible for rediscount. It has been a common practice of the banks to borrow on fifteen-day notes and offer as collateral notes of their customers which could be rediscounted, which run perhaps for thirty to sixty days. Obviously, it is simpler to do this than it would be to rediscount a large number of notes of comparatively small denomination. Another advantage, of course, is that the bank may not have notes on hand which mature in the short period for which they desire to borrow the money.

Bills Bought in the Open Market.—The Federal Reserve Act permits the Federal Reserve Banks to engage in what are called “open-market transactions.” The primary purpose of this permission is to enable the banks to control the movement of gold in foreign exchange. Thus, they are permitted to buy certain types of foreign bills of exchange, but also they may buy certain types of bills in the domestic market. It has been the hope of many people that we could introduce in this country the settlement of obligations by trade acceptances. The Federal Reserve Board, the National Association of Credit Men, and the American Bankers’ Association all have co-operated in a campaign to educate the American business men in the use of the trade acceptances. The trade acceptance is intended to supplant the method of selling goods on open account; that is, the selling of goods where no record is made of the transaction except on the books of the parties concerned. When the trade acceptance is used, the seller of goods draws a draft on the purchaser. In brief, this draft is addressed to the buyer by the seller and says: “Pay to the order of ourselves so many dollars.” On the face of the draft is an indication of the transaction out of

which the draft arises. This draft when presented to the purchaser is "accepted" by him if the goods have arrived in satisfactory condition. The purchaser writes "accepted," signs his name, and makes the draft payable at a certain bank at a certain time. The acceptance then becomes his promise to pay. The big decline in the total of bills on hand shows the effect of declining prices and depression on bank borrowing.

In foreign trade, the bankers' acceptance is used to greater extent. This is explained in the chapter on Foreign Exchange.

4. United States Bonds and Certificates.—*United States Government Bonds.*—The holdings under this title are the result of the provisions of the Federal Reserve Act which were intended to get rid of the national bank note circulation. The national bank notes are secured by the deposit of government bonds. Because of the profit involved in the issue of notes, the government was able to sell bonds to be used to secure notes which bore the low rate of interest of 2 per cent. Any plan to retire the national bank notes had to make provision for relieving the banks of these bonds. The amount held in the banks at the time of the passing of the act was about \$740,000,000. The law provided that each year the Federal Reserve Banks should buy, if the Federal Reserve Board directed, \$25,000,000 worth of these bonds from the national banks. The Federal Reserve Banks might issue Federal Reserve Bank notes against these bonds, or they might have half of them changed into 3 per cent thirty-year bonds and the other half into 3 per cent one-year gold notes of the government which were to be taken on the agreement to purchase at the end of the year an equal amount of one-year gold notes

and repeat the process for thirty years. Because the war bond issues were at a higher rate than 3 per cent, the Federal Reserve Board has not required the banks to buy bonds from the member banks since the war.

United States Certificates of Indebtedness.—This item is composed of two kinds of certificates of indebtedness. *First*, the certificates of indebtedness issued by the government for short-term financing. The Federal Reserve Banks have always taken a certain amount of these. The second type of certificate is the one-year certificate. One-year certificates of indebtedness were issued under the terms of the Pittman Act, to be deposited as security for an issue of Federal Reserve Bank notes. These notes took the place of the silver certificates which had been backed up by the silver dollars melted for bullion under that act. As the silver is repurchased, these certificates will be retired. We may expect considerable variation in the amount of the other type of certificates of indebtedness. Just before payment of interest on Liberty bonds is due, the government may borrow on short-term certificates from the Federal Reserve Banks. As the investment market improves, presumably the certificates of indebtedness will get more and more into the hands of the investing public.

5. The Banking-House.—*Bank Premises.*—The banks, of course, must have quarters in which to carry on their business. In most of the cities, the banks have purchased real estate upon which they will later build. Since the earnings have been great, the banks have followed a very conservative course in the matter of writing off the cost of the buildings located on the real estate purchased where they intend to tear down the buildings later.

Five Per Cent Redemption Fund against Federal Reserve Bank Notes.—Federal Reserve Bank notes, just as national bank notes, are secured by government obligations and a fund equal to 5 per cent of the notes outstanding is deposited in the Treasury at Washington for redemption of the notes. The fund need not be gold, it may be lawful money.

6. The Collection System.—*Uncollected Items.*—This heading covers a large number of items, many of which are small in amount. “Due from foreign banks” is a small item now. National bank notes are not legal tender and so could not be counted above in stating the resources. They are, however, assets of the Federal Reserve Bank which holds them. Bank-notes of other Federal Reserve Banks according to the law cannot be paid out by the Federal Reserve Bank under the penalty of 10 per cent. So these two items could not be used as reserve. Federal Reserve notes of the other Federal Reserve Banks come under the same rules. Unassorted currency is an asset, but until it has been assorted it cannot appear in a statement under other holdings. The largest single item in this classification consists of transit items.

One of the functions of the Federal Reserve Bank is to act as a clearing-house for the member banks of its district. Previous to the start of the Federal Reserve System, checks received by a bank on banks outside of its own city were collected usually through correspondent banks.

Under the National Banking System, banks in all cities except New York, Chicago, and St. Louis were permitted to count as reserves balances in central reserve or reserve city banks. These balances, besides being used as reserves, were the basis of the system of domestic exchange. When a customer of a bank desired to make payment at a distance

and did not wish to send his own check, he got from his bank a bank draft, that is, the bank's check on its deposit in another city. Usually, of course, the draft was on a New York bank. Banks in reserve and central reserve cities paid a small rate of interest, usually 2 per cent, on these balances. It was to the advantage of the bank to be able to make this small earning on the money which was also functioning as a reserve. The banks ordinarily built up their balances in the reserve city banks by sending checks which they had received which were drawn on banks outside of their own city. Thus, the depositing of reserves, the drawing of drafts, and the check collection system tended to concentrate funds in New York. One of the purposes of the Federal Reserve Act was to cause a decentralization of banking. We will see how the Federal Reserve System provides for the collection of checks. Each bank may send to the Federal Reserve Bank of its district all the checks on other banks which it has received in the course of business. The Federal Reserve Bank credits the bank at par for these checks, but the credit is not always made the day it is received.

The banks of the country are divided into classes according to the length of time which it takes for the Federal Reserve Bank to send the item to the bank and get the bank's payment for it. These classes are one day, two, three, four, five, six, and eight days. The bank gets credit then, at the end of this period, for the total amount of the checks. The bank to which the check is sent usually pays the check by drawing on its balance at the Federal Reserve Bank. This balance is built up by sending checks on other banks which it has received in the course of business. Thus, the Federal Reserve Bank, in practice, performs the same

function as the clearing-house does for banks in a given city, since most of the checks to be collected are sent to the Federal Reserve Bank, and the payment is actually made by offsetting the debits and credits of the various banks. It is the aim of the Federal Reserve Board to have this system of check collection cover the entire country. So, not only member banks, but all banks are urged to utilize this system. The law provides that non-member banks may carry balances with the Federal Reserve Banks for the purpose of meeting payment of checks. The Federal Reserve Board has been successful in getting a very large proportion of the banks of the country to join the system. In almost all of the districts all the banks have agreed to remit for their checks at par. In some of the States in the South and West opposition has been encountered and the system is still incomplete. A member bank may send a check on a bank in another district to the Federal Reserve Bank of that district and get credit in its own Federal Reserve Bank. The settlement between Federal Reserve Banks is made by the Gold Settlement Fund, which was mentioned above.

LIABILITIES

7. The Capital Liabilities.—*Capital.*—The capital of the twelve Federal Reserve Banks at the end of the respective years has been as follows:

End of Year	Capital of Federal Reserve Banks in thousands
1914.....	\$18,051
1915.....	54,913
1916.....	55,694
1917.....	70,442
1918.....	80,767
1919.....	87,407
1920.....	99,770
1921.....	103,186

This increase in capital is due to three factors. The law provided that each member bank should subscribe for 6 per cent of its capital and surplus in the stock of the Federal Reserve Bank. One-sixth of this subscription was to be paid at the call of the Federal Reserve Board; another one-sixth within three months after that, and another one-sixth within six months after the first call. That is, one-half of the subscribed capital was to be paid in. The other half was to remain as an unpaid subscription. At the end of the year 1914, only one payment had been made, so part of the increase which comes in the year 1915 was due to the fact that two more instalments were paid. Whenever a member bank increases its capital or surplus, it must subscribe to an extra amount of capital stock in the Federal Reserve Bank. Whenever a new national bank is formed, it also must subscribe the same amount as the national banks which were in existence at the time when the law was passed. A state bank becoming a member makes the same subscription as the national bank. The big increase in the capital due to the membership of state banks comes in the year 1918. In the fall of 1917, the President of the United States issued an appeal to the state banks to join the Federal Reserve System in order to strengthen the financial position of the country in the prosecution of the war. This appeal was largely heeded in both 1917 and 1918. The increasing volume of business, due to the rising prices and to the activity of war times, caused a great number of banks to increase their capitalization, and this has been reflected in the growth of the capital of the Federal Reserve Banks.

Surplus.—The surplus of the Federal Reserve Banks is closely connected with the earnings of the banks, for it is

from the excess of earnings over the dividend requirement that the surplus fund is to be accumulated. At first the Federal Reserve Banks had rather small earnings. This was due to the business situation at the time banks were started. The year 1914 was a year of depression. Shortly after the start of the war, because we were a neutral nation with large supplies of food and munitions, we began to sell vast quantities of goods to Europe. The payment of these goods was made partly in the return of American securities held abroad, but partly in gold. As a result the United States received over \$1,000,000,000 in gold from abroad. This large sum of gold, along with the lessened reserve requirements enacted by the Federal Reserve Act, gave a surplus of loanable funds in most of the banks. For the first two or three years the Federal Reserve Banks made very little more than expenses, so no surplus was accumulated. The original act provided that after the 6 per cent cumulative dividend had been paid on the stock, one-half of the net earnings should go to surplus until the surplus was 40 per cent of the *paid-in* capital stock of the bank. This was amended in 1919 to provide that all of the net earnings above the dividend (including those of 1918) should go to surplus until the surplus was 100 per cent of the *subscribed* capital, and after it had reached this amount that 10 per cent of the net earnings after dividends should go to what is sometimes called the supersurplus. All that does not go to surplus goes to the government as a franchise tax and may be used by the government to retire indebtedness of the United States or to strengthen the gold reserve back of the United States notes. With the coming of the war and the vast amount of government financing, the facilities of the Federal Reserve Banks were utilized very

largely. People were urged to buy bonds with borrowed money. The banks rediscounted these notes of the borrowers with the Federal Reserve Banks. So, in a sense, we may say that the bonds were purchased by the expansion of bank credit in the form either of Federal Reserve notes or of deposits in the Federal Reserve Banks. In order to facilitate the financing, the Federal Reserve Banks kept the rate of rediscount low. Thus, although the volume of rediscounts was very large, the earnings did not increase as much as they did later when the Federal Reserve Board, feeling that the obligation to those who had borrowed to buy bonds had been fulfilled, authorized the Federal Reserve Banks to raise the rediscount rate. This took place during the post-armistice boom in business, when there was still greater expansion of note issues and deposits. The result of increased rates and higher discount rates meant enormous earnings, so it will be noticed that the surplus of the banks as a whole is over twice as great as the paid-in capital stock.

Reserved for Government Franchise Tax.—This item is extremely important, as it enables us to get a rough estimate of the earnings each week. Nine-tenths of the net earnings after dividends goes to the government, so ten-ninths of the increase in this item represents, roughly, the earnings for the week.

8. Deposits—Services for the Government—Mobilization of Reserves.—*Government Deposits.*—The Federal Reserve Banks act as fiscal agents for the government. The law gives the secretary of the treasury the option whether he shall deposit the government funds with the bank or not. Most European governments keep all of their funds in banks. We still have the independent

treasury system, started in 1846, when the banks of the country were really not sound and it was wise for the government to take care of its own funds. The system was modified after the passage of the National Bank Act by making the national banks depositaries. It is hoped that eventually we will do away entirely with the independent treasury system. The amount of government deposits has been cut down since the close of the war. Already the sub-treasuries have been abolished. The Federal Reserve Banks handle the issue and repayment of certificates of indebtedness for the Treasury Department in the United States. They pay the interest on the Liberty bonds and take charge of the issuing of the permanent bonds in place of the temporary bonds first issued. The United States Government bears the cost of these fiscal agency services.

Due to Members.—Reserve Account.—This item points to one of the great achievements of the Federal Reserve System; namely, the mobilization of reserves. Under the former system part of the reserve was held in the individual bank, and in times of crisis, one bank might have abundant reserve while another was greatly in need of reserves, but there was no easy way by which reserves could be transferred from one bank to another. We have seen that in times of emergency, by means of clearing-house loan certificates, a rather crude method of meeting the situation was devised. The part of the reserve which was held in New York was obviously insufficient to meet the demands of all the banks, who feared that they might need the reserve and so called for it whether they really did need it or not. The original act provided for a scheme of reserves in which part was to be held in the bank itself, part in the Federal Reserve Bank, and part in either. An amend-

ment during the war reduced the reserve requirement and provided that it should all be held in the Federal Reserve Bank. Of course, the bank must still hold some funds in its own vaults, but the law allows each bank to use its own judgment as to the amount which shall be so held. Now, any bank which is in difficulty can utilize the reserve held in the Federal Reserve Bank by means of rediscounting paper with the Federal Reserve Bank. In this way it can get Federal Reserve notes if its depositors are demanding cash, or it can get a deposit credit at the Federal Reserve Bank which can be used as reserve for an increase in deposits given to those who wish to borrow money.

Other Deposits.—This item includes the credits of foreign governments, which were of considerable importance during the war but which now are rather small in amount. It also includes the balances held by non-member banks for the purpose of clearing, as was explained above in the account of the check collection system; and also three items—cashiers' checks, Federal Reserve exchange drafts, and Federal Reserve transfer drafts. It is seen that these are outstanding liabilities of the bank not yet presented for payment.

9. Notes of the Banks.—*Federal Reserve Notes in Actual Circulation.*—The figure for notes in actual circulation is obtained by subtracting from the notes outstanding those held by the bank and branches and those forwarded for redemption. It is interesting to see that the amount of Federal Reserve notes in circulation is larger than the amount of any other kind of money. The war decided the question of elasticity on the one side, that is, of expansion; and the notes proved adequate to meet every demand. We have not yet seen whether they will contract

as easily as they expanded. There has been some contraction. The original act provided that these notes should be backed by 100 per cent short-time commercial paper and 40 per cent gold reserve. During the war, this was changed to the requirement that they should be backed by 100 per cent of gold and commercial paper, at least 40 per cent of which must be gold. The accounts of the bank show that they always carry more gold and commercial paper than the law requires.

We may trace the way in which these notes expand to meet the demands of trade. If a bank has an increased demand for loans, it may rediscount some of its notes at the Federal Reserve Bank in order to provide for the new loans. The Federal Reserve Bank may deposit this paper with the Federal Reserve agent and get in return Federal Reserve notes. Thus, we see that the increasing demands in business which show themselves in the increased amount of commercial paper furnishes the basis for the increase in note issue. On the other hand, if the total volume of loans of the bank is decreasing, it will pay its rediscounts at the Federal Reserve Bank at maturity instead of replacing them with other rediscounts. The payment will be made to the Federal Reserve Bank in the form of money or credit instruments redeemable in money. The Federal Reserve Bank in order to get back the collateral must deposit with the Federal Reserve agent Federal Reserve notes or lawful money. It might be that the bank would send in Federal Reserve notes and the Federal Reserve Bank could deposit them directly. If some other form of money is deposited with the Federal Reserve agent, the amount of Federal Reserve notes outstanding may not be decreased immediately, but ultimately the notes will be

returned for redemption and the other forms of money deposited will be paid out for this purpose.

Federal Reserve Bank Notes in Circulation, Net Liability.—This amount is obtained by subtracting the bank-notes held by banks and branches from the total outstanding. These Federal Reserve Bank notes are similar to the national bank notes; that is, they are secured by the deposit of government obligations. Those outstanding are due to two operations of the Federal Reserve System. The first resulted from the taking over of bonds by the Federal Reserve Banks as part of the provision for the retirement of the national bank notes. *Second*, some resulted from the operation of the Pittman Act, which was explained above. The decision to use Federal Reserve Bank notes instead of Federal Reserve notes to replace the silver certificates which were retired when the silver dollars were melted up was based on the fact that 5 per cent instead of 40 per cent gold reserves would need to be kept against them.

Deferred Availability Items.—This item corresponds to the entry "Uncollected Items" under resources. We have seen that in the check collection system certain items are not available until after a certain period. These items are liabilities which are not yet due. To make this clear, suppose a member bank sends in a check on another bank. This check appears once as a deferred liability of the Federal Reserve Bank since it, in two days or so, will owe the bank sending the check in the amount of the check. It appears once as a deferred asset because, at the end of the two days, the Federal Reserve Bank will have a claim on the bank on which the check was drawn. The two deferred items should be approximately the same in amount.

10. Other Liabilities—Earnings.—*All Other Liabilities.*

—This is an extremely important subdivision, made up of a large number of items. It includes the item which appears in the ordinary bank statements as undivided profits. It includes the earnings which arise from the discount on bills discounted, the discount on bills purchased, the interest on United States securities, and the penalties on deficient reserves. This last item calls attention to the fact that if member banks do not keep the reserve required by law they are fined by the Federal Reserve Bank. From these gross earnings are deducted the current expenses, and this gives the current net earnings. From the current net earnings, the dividends paid are deducted. The amount left is available for surplus and the franchise tax. As was indicated above in considering surplus the banks have pursued a liberal policy in setting up reserves and in writing off costs for furniture, fixtures, vault, etc. To the amount of net earnings is added the unearned discount and from this sum the interest accrued on United States securities is subtracted. This gives the total as it appears in the balance-sheet.

11. The Reserve Ratios.—At the foot of the table is given the statements of percentage of reserves. This is given in two forms; the important one is the percentage of total reserves to deposit and Federal Reserve note liabilities. In the earlier statements, uncollected items and other deductions from gross deposits were subtracted from the total on which reserve was to be held and the deferred availability items were added. In March, 1921, this practice was discontinued, and so now the statement is on the basis of deposit liabilities and note liabilities compared with the actual reserve.

12. The Discount Policy of the Federal Reserve Board.

—The Federal Reserve Banks are operated for public service, not for profit. So the Federal Reserve Board need not be hampered by consideration of profit in carrying out its policies.

The board aims to make the discount rates more equal throughout the country. We need not expect the rates to be exactly uniform. One of the advantages of the system of regional banks over a central bank is the possibility of varying the rates in the different sections of the country. For high rates are not entirely an indication of a lack of capital. They are due partly to the greater risks in the newer sections. If one Federal Reserve Bank needs funds another will rediscount for it. Thus, the supply of funds is equalized throughout the country and the discount rates made more uniform.

During the war the discount policy of the Federal Reserve Banks was shaped to aid in the government financing. The secretary of the treasury wished to float the loans below the normal rate of interest. To do this it was necessary to keep the rate of discount in the money markets abnormally low. This low rate was obtained by having the Federal Reserve Board set low rates of rediscount. To aid in the sale of bonds on credit, the Federal Reserve Banks gave a still lower rate on loans secured by government war obligations.

The post-armistice boom brought a big expansion of bank credit. The Federal Reserve Board felt bound to allow the rates to remain low for a year, since promises had been made to that effect during the loan campaign. So the efficacy of high discount rates in checking expansion was not tested. The reserves of the Federal Reserve Banks

fell to near the danger-line. So after the year was over, the Federal Reserve Banks raised rates vigorously. Deflation followed, and of course some of those hit blamed it on the policy of the Federal Reserve Board. The better opinion seems to be that the prices could not have been maintained anyway in the face of increased production and the falling off of the war demand. The main object of the Federal Reserve Board, the improving of the percentage of reserves, was accomplished.

In the chapter on Cycles in Trade and Industry is discussed the possible policy of the Federal Reserve Board in the control of credit expansion. An allied problem is the protection of the gold supply of the country from withdrawals for shipment to other countries. Just now the question is, rather, how to prevent the accumulation of too much gold in the United States. However, after reconstruction has been achieved, there will no doubt be times when we wish to protect our stock of gold. The Bank of England used to prevent gold from leaving England by raising the discount rate. The efficacy of the measure depended upon its attracting loanable funds from other money centres. London was a great bill market, and at that time, a free gold market. So lenders were sure that their funds could be invested to take advantage of the high rate and that when they wanted the funds back again, they could have them in gold. The Federal Reserve Board is aiding in developing a market for bankers' acceptances in New York. This will provide the bill market. We are at present the only large free gold market in the world. Thus, the factors are all favorable for the use of this device if the banks are rediscounting enough at the Federal Reserve Banks to force them to follow the

Federal Reserve Banks' rate in setting the rate on bankers' acceptances.

13. The Aid to Foreign Trade.—Foreign trade is facilitated by banks in foreign countries controlled by our own citizens. Often in the past our dealers have complained that the foreign banks through which they dealt aided their competitors. The Federal Reserve Act helps in several ways in providing banking facilities abroad. In the first place, national banks with a capital and surplus of one million or over may establish, under the control of the Federal Reserve Board, branches in foreign countries. In the second place, national banks may subscribe up to 10 per cent of their capital and surplus in the stock of banks doing a foreign banking business. Again the act provides for the chartering of corporations which are authorized to do a foreign banking business under the supervision of the Federal Reserve Board. Action has been taken under these provisions. The depression in foreign trade will provide a severe test for such institutions.

14. Summary of Benefits of the System.—In brief, the Federal Reserve System has unified our banking system, centralized reserves, given an elastic currency, made provision for foreign banking, aided in financing the war, prevented crises degenerating into panics, improved the facilities for collecting checks, provided facilities for financing foreign trade, helped make bank assets more liquid, and made a start at controlling discount rates and the international movement of gold.

15. Exercises.—1. Why not have a Gold Settlement Fund for international obligations?

2. Should Federal Reserve Banks be permitted to discount bills or notes secured by government bonds in time of peace?

3. Explain how the Federal Reserve Banks can control gold movements through the holding of foreign bills.
4. Explain the use of the trade acceptance.
5. Suggest a way for eliminating the national bank notes from circulation.
6. In what way is the Federal Reserve Bank less efficient for clearing than the local clearing-house?
7. Why should people want decentralization in banking?
8. Compare the assets of the Federal Reserve Bank of New York with those of the other banks. What percentage of the total does the New York bank hold?
9. What advantage would universal par check collection be to the business man?
10. How much capital and surplus does a Federal Reserve Bank need?
11. Trace roughly the course of earnings of the Federal Reserve Banks and predict whether this year's earnings will be greater or less than last year's earnings.
12. What services do the Federal Reserve Banks perform for the government?
13. Show that the present reserve holdings are safer than the holdings before the Federal Reserve Act although the percentage of reserves is less.
14. Trace the security back of the Federal Reserve notes until you get to actual concrete wealth.
15. Indicate the process by which Federal Reserve notes expand to meet the demands of business and contract when no longer needed.
16. What item indicates the earnings of the banks?

CHAPTER VI

SOCIALISM

1. The Problems of the Distribution of Wealth. 2. Utopian Socialism—Fourier—Owen. 3. The Theoretical Basis of Socialism—Marx. 4. Socialist Criticism of the Present Order. 5. Consideration of the Criticism. 6. The Socialist Proposals. 7. The Socialist Party—Number of Voters—Platform. 8. Guild Socialism. 9. Exercises.

I. The Problems of the Distribution of Wealth.—There are two problems in the distribution of wealth: (*a*) the determination of remuneration for services of the various factors in production, and (*b*) the determination of the amounts which different individuals in society get. In the case of many laborers, there is only one source, their wages. Some individuals receive wages, rent, interest, and profits. Obviously, it is the second type of distribution which starts most of the discussions about the justice of the present order, but very soon the discussion gets back to the legitimacy of the shares of distribution in the first sense. The single-taxers attack the private receipt of land rent. The socialist would rule out all shares except wages.

The labor movement has taken on different forms in different countries. In Great Britain and the United States, the trade-union movement is the most important aspect of the effort of laborers to improve their conditions. This movement is discussed in other chapters. On the continent of Europe, although there are trade-unions, more emphasis has been given to socialism. Speaking broadly, we may say that the trade-unionist accepts the present economic order, and, working within that order,

endeavors to improve his condition by getting shorter hours and higher wages. The socialist aims to improve his condition by changing the present economic order. There are different aspects of socialism.

2. Utopian Socialism.¹—The early socialist movements were characterized by planning for ideal commonwealths or ideal organizations of society. These in general are called Utopias, from the name of the famous book by Sir Thomas More.

The basis of most of these schemes was the idea of the natural rights of man and a total lack of the idea of historical continuity. These Utopian socialists thought that social institutions could be discarded and new ones created with the same ease with which a man can change his clothes.

Each had an analysis of the evils of society and a plan to remedy them. Fourier may be taken as typical; he thought that not enough wealth was produced because many were not employed at "productive" labor. Soldiers, the idle rich, tramps, criminals, police and courts, lawyers, philosophers, tax officials made up about two-thirds of society and lived off the other third which really worked. Those who worked were not set to the task for which they were best fitted. The scale of production was often too small to get the best result. Middlemen exploited both the producer and consumer.

Fourier's plan for the organization of society to get rid of the evils was to have a phalanx composed of about 1,500 people. They were to have a considerable area of ground and be practically self-sufficing, devoting most of their time to agriculture with some attention to manufacture. They were all to live in one big building with great

¹ Cf. Skelton, *Socialism*, chap. IV.

comforts and luxuries made possible by uniting scattered households. We might call it the prototype of the modern apartment-house if it were not for the fact that the workshops were in the same building.

He had a novel scheme to get men to work. The desire for variety was to be catered to. Each man would work at six or eight different occupations each day.

The scheme of the distribution of wealth was rather complicated. Every one was to receive a minimum of consumption goods. Each occupation gets a share, greater as it promotes harmony, and varying inversely with the amount of pleasure. The share of each occupation is divided into twelve parts, five going to labor, four to talent, and three to capital. Thus, he kept private property and capital.

Robert Owen planned communities of from 500 to 3,000 members. The whole world was eventually to be covered with these communities which would federate. In Owen's proposed communities, equality was to be the basis of the distribution of wealth. There was to be no private property.

The Utopians believed in peaceful propaganda. They were sure that if their plan was tried its success would be such that all would be convinced. America was a favorite ground for experimentation because of the freedom and the cheap land. Hundreds of communities were started; most of them failed quickly. The only ones which were permanently successful were those where there was a religious bond. Quite frequently the members were more interested in talk than in work.

3. The Theoretical Basis of Socialism.—Karl Marx was a radical who took part in the German revolution of 1848 and then went to England. In distinction to the socialism

which preceded, Marx and his followers have called their socialism scientific. In the year 1848, Marx and Engels put forth the *Communist Manifesto*. The ideas expressed in this document may be taken as typical of what is called orthodox socialism. They claim that the prevailing mode of economic production and exchange determine the social organization of society and explain the political and intellectual history of the time. Marx followed the philosophy of Hegel, giving it a materialistic interpretation. All history, Marx and Engels say, has been a struggle between classes. At the time when they were writing, the struggle, they said, was between the proletariat and bourgeoisie. Previously, when classes had emancipated themselves, they proceeded to enslave the class below them. Marx said that with the victory of the proletariat, class struggle would cease since there was no class below it to enslave. The doctrines are developed at greater length in Marx's book *Das Capital*. In the first place the theory of value is that all value is based, or rather should be based, on the socially necessary labor time involved in production. This theory of value has been treated in Turner's Introduction, pages 470-471.

The theory of value also contains the following corollary, called the theory of surplus value. In society as it is constituted under the capitalist system, Marx says that the laborer produces all the value, but that the capitalist, through his control of capital, is enabled to prevent the laborer from getting all that he produces. He takes the surplus above what is necessary to give the laborer an existence. Here Marx is basing his theory on the iron law of wages in its baldest and crudest form in which no allowance was made for raising the standard of living.

Another theory has to do with what is called the doctrine of increasing misery. Historically, the analysis runs as follows: Under slavery the master was bound to furnish the slave land and equipment to work with as well as food and shelter. With the introduction of serfdom, the condition, the socialists say, is worse because the laborer now has to provide his own food and clothing; the lord provides the land. The final degradation comes in what they call wage slavery, in which the employer is not bound to furnish food and clothing, land, nor employment. In its application to the capitalist system of production, the doctrine of increasing misery insists that as the capitalists use the surplus which goes to them to acquire more capital the laborers are exploited more and more until finally the system gets so bad that revolution is inevitable.

One of the results of the Industrial Revolution was an increase in the size of the business unit. Business became more concentrated. One big factory replaced a number of small hand workshops. Marx observed this concentration and insisted that the tendency would continue until all industry was in the hands of a relatively small number of people. Then it would be easy for the state to take over industry. The period of trust formation appeared to some socialists to be a fulfilling of the prophecy of Marx. No one at the present time is quite so sure as Marx that the process will really continue until all industries are combined into one. Not all of the trusts have been successful. Concentration in agriculture has gone less far. In most countries, agricultural production is still in the hands of the small landholders. In many countries, the average size of farms is growing smaller rather than larger.

Marx thought that the middle class would disappear,

leaving only the workers and the capitalists. Most observers of social conditions in various countries agree that the middle class is increasing rather than decreasing.

In the theory of increasing misery, Marx again was generalizing on the basis of conditions in England and many facts seemed to support his contention. Very few statisticians now would be willing to admit that, taking the long-time view of things, misery has been increasing. All of the tests show that considering fairly long periods the laborer at the present time is better off than he was previously.

The socialist doctrine of crises is a corollary of the doctrine of surplus value. As the capitalist invests more and more capital, less and less of the proceeds of industry go to the workers. Thus, the workers are unable to buy the products of industry; and so recurring periods come, in which manufacturers are unable to sell their products. Presumably, the inevitable revolution will come in connection with a crisis.

4. Socialist Criticism of the Present Order.¹—All but a few people admit that the present economic and social order is not perfect. Many people are not satisfied with the share of goods which they receive under the present distribution of wealth. To these people the socialist propaganda makes its appeal. It blames all of our miseries on the capitalistic system of production. Most of the propaganda is devoted to the denunciation of the present order with only a slight attention to anything but the broadest generalities about the order which it is proposed to substitute for it.

The socialists claim that the competitive system, motivated by the pursuit of profit, is not efficient. It wastes

¹ Cf. Skelton, *Socialism*, chap. II.

our forests. It leads to overproduction in some lines and the multiplication of middlemen. They contrast the number of milkmen on a street with the single postman. They maintain that competitive advertising is a waste. Under capitalism they say that production is without plan, the adjustment of supply to demand is never exact, and as a result we have crises at more or less regular intervals. Competition, the socialists claim, results in adulteration; in "cheap and nasty" goods. Financial fraud is also blamed on the capitalist system.

A second part of the criticism has to do with the effect of capitalism on human life. They say it condemns most people to misery, a struggle to get enough for a decent existence. The capitalist, they say, controls all chances for work and the workman can never be sure of his means of livelihood. Thus, the workman has no real freedom. His work also, as the result of minute division of labor, is usually monotonous and gives no chance for the play of individual initiative. Hours are long, accidents frequent, and many conditions inimical to health. The small wages make it impossible to provide good living conditions. On the moral side, socialists claim that the competitive system is responsible for intemperance and vice.

5. Consideration of the Criticism.¹—To start with, we must recognize that this criticism is part of the socialist propaganda. They wish a new social order, so they maintain that the present order is as bad as possible. Many of the socialists are actuated by the highest motives. But they are not scientific in their study. In so far as they point to actually existing evils, they perform a useful service. Though even here, the exaggeration in which they

¹ Cf. Skelton, *Socialism*, chap. III.

indulge often causes some people to discount their statements too much.

We object, then, not so much to the individual statements, though many of them can be easily challenged, but to the general impression they attempt to create by stressing all the bad features, by suppressing all of the good features, and by implying that certain scattered instances are typical of the whole.

The efficiency of the capitalistic system is to be tested, first by the comparison with what preceded it. In spite of admitted defects it has given the material basis for a much higher average standard of comfort for a larger number of people than was ever possible before. In the second place, the comparison must be between the results of the present system and the probable results of the proposed system, not merely the enthusiastic promises and prophecies.

Our capitalistic system involves co-operation as well as competition and is not entirely selfish in business or in using the gains from business. The state without becoming socialistic can regulate and check tendencies which prove harmful. Forests can be conserved. There are obvious wastes in our present system of marketing, but most people prefer it to the governmental control during the war. Our modern crises are much less serious than the famines which preceded them. Adulteration is handled by law as are also the grosser forms of financial fraud.

The condition of the workers pictured by the socialist does not seem to be true in this country, at least. Employers are not all heartless. Most of them do have an interest in their workers and the state enforces certain minimum standards on those who do not. Labor-unions have

gained great power, and many an employer during the war would have been quite startled if told he was dealing with wage slaves. Granted that the labor is more monotonous, it is less exhausting and, more important, hours of labor have been shortened. Most of the more serious hazards of industry have been minimized by laws regarding sanitation and safety, and those injured come under workmen's compensation laws. Our public-school system aims to give each child a certain equipment. A part, at least, of the troubles of the poor arise from foolish use of wages as well as from the smallness of the wage. Granted a certain minimum of material means for the satisfying of desires, the moral development is largely a matter of the individual.

6. The Socialist Proposals.—In brief, the socialists propose that the means of production shall be owned and operated by society as a whole. Some of the later socialists have not insisted that all the means of production shall be so owned; for example, in many cases they are in favor of permitting the small holders of agricultural lands to continue to hold and operate their farms. They in general, however, wish to do away with the shares in distribution which now go to the landholder and the capitalist. This follows, of course, from their theory of value. If labor is the only productive factor, then obviously the landowner and the capitalist have no right to receive any of the product of industry, and just as surely if the labor theory of value is not accurate then the socialist analysis fails.

Many problems arise about details, and there is no uniformity in answering them. Most socialists say that the state will be democratic. The earlier propaganda talked of expropriating the capitalist, now many suggest com-

pensation. The direction of industry would probably be in some form of bureaucracy, which will determine what and how much will be produced. Money might be retained. The earlier socialists seemed to favor equality in the distribution of goods, now efficiency is frequently suggested. There is difficulty about the introduction of improvements and indeed about maintaining the efficiency of the workers and the leaders. The control of population would also be a serious problem.

7. The Socialist Party.—In the United States there have been many vicissitudes to socialism as a political party. Our chief interest is not in the political details of the party but in the strength they have shown and the principles they advocate.

The following table indicates that we have little to fear from the national action of such a small minority:

SOCIALIST VOTE FOR PRESIDENT¹

Year	Vote	Per Cent of Total Vote	Per Cent of Population
1892.....	21,164	.176	.03
1896.....	36,274	.263	.05
1900.....	127,553	.913	.168
1904.....	433,532	3.2	.526
1908.....	434,618	2.9	.489
1912.....	913,132	6.2	.983
1916.....	604,759	3.3	.603
1920.....	947,000	3.6	.896

¹ E. G. Riggs, *Forum*, vol. 66, p. 144.

The socialist party platform, of course, like other platforms, has a good deal to say of the mistakes and weaknesses of the competing parties. Our interest, however, is in the section which defines their policy in so far as it is social and industrial.

"*Social*.—1. All business vitally essential for the existence and welfare of the people, such as railroads, express service, steamship lines, telegraphs, mines, oil-wells, power plants, elevators, packing-houses, cold-storage plants, and all industries operating on a national scale should be taken over by the nation.

"2. All publicly owned industries should be administered jointly by the government and representatives of the workers, not for revenue or profit, but with the sole object of securing just compensation and humane conditions of employment to the workers and efficient and reasonable service to the public.

"3. All banks should be acquired by the government and incorporated in a unified public banking system.

"4. The business of insurance should be taken over by the government and should be extended to include insurance against accident, sickness, invalidity, old age, and unemployment, without contribution on the part of the worker.

"5. Congress should enforce the provisions of the Fourteenth and Fifteenth Amendments, with reference to the negroes, and that effective federal legislation should be enacted to secure to the negroes full civil, political, industrial, and educational rights.

"*Industrial*.—1. Congress should enact effective laws to abolish child labor, to fix minimum wages, based on an ascertained cost of a decent standard of life, to protect migratory and unemployed workers from oppression, to abolish detective and strike-breaking agencies, and to establish a shorter work-day in keeping with increased industrial productivity.

"*Fiscal*.—1. That all war debts and other debts of the federal government must be immediately paid off in full,

the funds for such payment to be raised by means of a progressive property tax, whose burden should fall upon the rich and particularly upon great fortunes made during the war.

"2. A standing progressive income and a graduated inheritance tax should be levied to provide for all needs of the government, including the cost of its increasing social and industrial functions.

"3. The unearned increment of land should be taxed, all land held out of use should be taxed at full rental value."

8. Guild Socialism.—A variant called guild socialism has recently come into considerable prominence in England. The industries are to be owned by the people as a whole but operated by the workers. Thus, industry would be carried on by numerous guilds. The state would keep the peace between the guilds. A start has been made in the building industry. A workers' guild has been taking contracts to build houses for municipalities.

9. Exercises.—1. How do you explain the greater growth of the labor movement in the form of socialism on the continent than in Great Britain and the United States?

2. To what causes do you attribute the failure of the communistic experiments?

3. In what sense is Marxian socialism scientific?

4. What facts of social development can be satisfactorily explained by an economic interpretation of history? Are there any facts which cannot be so explained?

5. Are actual class struggles wholly economic?

6. In what stage of economic development is the labor theory of value a fairly satisfactory explanation of values?

7. How far has concentration proceeded in iron and steel, farming, clothing, cotton manufacture, woollen manufacture, groceries, dry-goods, tobacco, railroads, and housing?

8. What is meant by the middle class? From the statistics of the income tax estimate the size of the middle class in the United States.

9. What are the criteria of progress? Apply them to test the doctrine of increasing misery.

10. If we admit that the present order has its faults, must we become socialists?

11. What is the difference between socialism and social reform?

12. What is the difference between socialism and government ownership?

13. Under socialism: How would goods be exchanged? Who would decide what and how much goods would be produced? How would directors of industry be chosen? How would they be rewarded? How would capital be procured? How would progress in technic of industry be obtained? How would overpopulation be prevented? How would the individual's occupation be determined? What means would be employed to keep the individual at work? Would wages be based on equality, need, desire, or efficiency?

14. Why do others besides socialists vote the socialist ticket?

CHAPTER VII

LABOR ORGANIZATIONS

1. The Wage Bargain—Labor the Long Factor—Labor the Short Factor. 2. The Aims of Trade-Unions—Higher Wages—Shorter Hours—Sanitation and Safety—Security and Continuity of Employment—Share in the Control of Industry. 3. Types of Unions and Federations. 4. Collective Bargaining—Rochester Clothing Agreement. 5. Strikes as War. 6. The Boycott, the Union Label, and Other Activities. 7. The Open and Closed Shop Controversy. 8. Trade-Union Leadership. 9. Employers' Associations. 10. Arbitration and Conciliation. 11. The Kansas Industrial Relations Court. 12. Organized Labor and the War—War Labor Board. 13. Exercises.

1. The Wage Bargain.—In the discussion of the theory of the distribution of wealth among the factors of production we talked a great deal about long and short factors of production and the small and large remunerations coming to them.¹ The principle was laid down that "wages are the discounted marginal product of labor." Now we are to see how these principles are actually worked out under modern economic conditions. It is evident at once that there is nothing automatic about the process. At each step individual initiative comes into play. Work must be sought, wages must be agreed upon. Let us picture the wage bargain.

The Wage Bargain Where Labor Is the Long Factor.—We will take first a case under the factory system. Suppose that Bill Jones is one of 5,000 employees at a plant. He is not satisfied with the wages he is getting. He decides to try for a raise. He may deal with the owner, but more probably it will be with a hired manager. As worker and manager get together the contest is seen to be

¹Turner's Introduction, chap. XX.

very unequal. What does Bill mean to the manager? Nothing in particular; he knows that if Bill quits he can get another man to fill his place. What does the job mean to Bill? Food, clothes, and house for himself and family. If he loses his job, he may get another one after a while; but it may mean that he must move, and there is always the possibility that he may not get another job. The powers of expression are vastly unequal. The manager is used to talking, Bill is not. The manager is well dressed, Bill feels that his cheaper clothes put him at a disadvantage. The result is usually that Bill makes an ineffective presentation of his demand and is curtly refused. He goes away with some resentment but also some relief that the matter is over with.

The Wage Bargain Where Labor Is the Short Factor.—The war gave forceful illustration of a condition in which labor was the short factor. From the standpoint of the employer, labor became insolent in its demands. The former situation was reversed. The job meant little to the worker, for he knew that he could get another without any difficulty. The laborer meant much to the employer, because the latter knew that he would have difficulty in replacing the worker and that his production would be cut down and the chance for large profit be lost.

Organization of laborers aims to strengthen their position in bargaining for a higher wage. It may increase wages in two ways: *First*, it sometimes happens that, where for want of free competition the employer may force an unfair bargain, a group of workers fails to receive "the discounted marginal product" of their labor. The union may help them to get that amount. *Second*, the union may exercise control over the amount of labor and thus

increase wages by making labor more of a short factor. The attempt here is to apply the well-known principles of monopoly price. Fortunately for society, the effort to create a labor monopoly is rarely successful. Craft skill cannot well be monopolized; machines can usually be made to replace such laborers.

2. The Aims of Trade-Unions.—In sum, the aims of trade-unions look toward the improvement of the conditions of workmen. More specifically, the workers want higher wages, shorter hours, better conditions of sanitation and safety, security and continuity of employment, as well as a share in the control of industry. These may be considered in turn.

Higher Wages.—We saw above that there is a legitimate place for union activity in raising wages. Many of the workers do not understand the limitation on the amount to which wages can be raised. They see no reason why wages cannot go up indefinitely. They do not see that increases in wages will finally force an increase in prices, and the increase in prices will cause a decrease in the amount of the product which the public will buy.

Shorter Hours.—The problem of hours of labor is one of the most important problems from the standpoint of both the public and the laborer. We recognize labor as a means rather than an end. In a democracy we wish each individual to live a well-rounded life. Labor provides the material means which make such a life possible. But if labor is too long continued, the laborer has no time or energy left to enjoy life. If labor is not continued long enough, the material means for civilization are lacking, and there is danger of reversion to idleness and low standards of living.

Another serious aspect of the problem has to do with the relative hours worked by different classes of laborers. Wicksteed calls it the "disease of civilization" that one group can benefit itself at the expense of other groups. We recognize that some kinds of work are more disagreeable, or tiring, than other kinds, and that a shortening of hours in certain lines of employment tends to equalize the difference in attractiveness. A decrease beyond this justifiable point in the hours might increase the remuneration of the group at the expense of all other workers who purchased the products of their labor. The shorter hours and higher wages would mean increased prices of the product of the group.

Better Condition of Sanitation and Safety.—At the present time questions of sanitation and safety are usually handled through labor legislation, which must wait its turn for discussion.

Security and Continuity of Employment.—The laborer's job, as we saw above, means life or death to him. He may lose the job by being fired or by stoppage of work due to depression. Much of the trouble in industry arises from the loss of personal contact which has come with the growth in size of business establishments. Often the hiring and firing are done by foremen, many of whom illustrate the danger of giving one man absolute authority over other men. The foreman may fire a man from petty spite or because he fears that the man is better than he is and may, in time, supplant him. The worker wishes to be free from the feeling that he holds his place subject to the whim of a foreman. Then again, promotions and lay-offs may be determined by favoritism. The unions often insist on seniority. This is particularly true of the strong railway

brotherhoods. Thus, continuity is secured for the older men, but it is obtained at the expense of the younger men. Promotion by seniority is objectionable because it removes the incentive to become efficient in order to win promotion. However, promotion by favoritism leads to sycophancy rather than efficiency. In the United States army and navy, the seniority system for promotion is ordinarily used to prevent political manipulation and favoritism.

A Share in the Control of Industry.—Much is heard nowadays of “democracy in industry.” Using the political analogy, workers complain that industry is organized on an autocratic basis. They demand that they shall be consulted about wages and hours of labor. Other control sought has ordinarily been in the matter of hiring and discharge. Sometimes an attempt is made to control or prevent the introduction of new processes or machinery.

3. Types of Unions and Federations.—Unions may be classified in many different ways. On the basis of character of membership we may distinguish (1) the labor-union, (2) the trade or craft union, and (3) the industrial union. The labor-union may be composed of workers of all kinds; for example, a union made up of teamsters and tanners and painters and plumbers. Presumably, the purpose of the labor-union is to promote the welfare of the whole laboring class. The Knights of Labor founded in 1869 in Philadelphia was a union of this type.

The trade or craft union is the commonest type at present. It combines the workers of one craft, such as carpenters, and has the narrower, more selfish object of furthering the interests of that one craft instead of all labor. On the whole, the results have justified this narrowing of purpose. The industrial union, as its name indicates, takes the industry

instead of the craft as the basis of organization. Thus, the United Mine Workers wish to have all of the men who work about the mines belong to the one union, instead of having the men belong to a great number of craft unions. The ability to shut down the mines completely gives them great bargaining power.

Forms of Organization and Federation.—The typical craft or trade union is usually called an international. There may be locals in Canada, Cuba, or Mexico. In theory, the international gets its power from the locals. But practically, through its control of the funds and its power to grant and revoke charters, the international really controls the locals. Sometimes there are subordinate organizations in each place of work. In the typographical union these are called chapels. The railway brotherhoods have combinations of all the locals on one railway system. There are various levels of federations of unions; the basis is roughly territorial. At the top we have the American Federation of Labor. As its name implies, it is a federation rather than an organic union. It combines most of the strong craft unions, except the railway brotherhoods, and also has as members some industrial unions. It aims to promote the interests of its members primarily through legislation and propaganda. It helps to organize unions. It keeps the peace between rival unions which claim jurisdiction over certain processes. In each state there is a State Federation of Labor which looks after state legislation and the promotion of the common interest of the labor-unions. In a number of cities there are city federations. They assist in strikes and boycotts, see that the union label is used on all public printing, and see that union hours and wages are observed on all public work.

Besides these federations, there are other groupings. Thus, locally there will be an Allied Printing Trades Council. This combines all of the craft unions in the printing business and enables the workers to present a united front to the employers. In the building trades we find local, state, and national federations of the various craft unions.

The methods used by trade-unions include collective bargaining, the strike, the boycott, and the union label.

4. Collective Bargaining.—By collective bargaining we mean the setting of wages and the conditions of employment by a process of negotiation between representatives of the employers and representatives of the workers. It equalizes more or less completely the strength of bargaining of the two parties. The workers' representative is often skilled in this industrial diplomacy. The employers face not the loss of one man's labor, but complete stoppage of work and consequent loss of profit. The employers still have the advantage in the matter of staying power. Ordinarily they are in no danger of not having enough to eat, even if work should shut down for a long time. Usually the agreement is a matter of compromise. Each side asks for more than it expects to get, and gets about what it expected. The agreement is embodied in a contract which usually runs one or two years. Where both sides are well organized this method has often worked out satisfactorily.

Collective bargaining usually proceeds on the basis of an agreement which provides the machinery and lays down the principles which govern the negotiations. The following is an example of a particularly successful agreement:

Labor Agreement, Men's Clothing Industry, Rochester, New York.—1. This agreement made between the members of the Clothiers' Exchange of Rochester, New York, as in-

dividuals acting through the said exchange as their representative, and the Amalgamated Clothing Workers of America, shall become effective after ratification by the members of both parties, and the fact of such ratification shall be indicated by an exchange of notes between the president of the exchange and the president of the amalgamated. The agreement shall continue in force until May 31, 1922.

Handling of Grievances.—2. The right of the workers in the industry to bargain collectively is agreed to, and the Amalgamated Clothing Workers of America is recognized as the organization of the workers, duly authorized to act as the agency for collective dealing with the employers. The employees in every shop shall elect representatives to take up their cases with the management in the first instance. If the shop representatives cannot agree with the management, then a union representative shall be called in. The employers shall appoint duly authorized representatives of the management, who shall be responsible for carrying into effect the terms and conditions of this agreement in all their shops.

Power of Hiring.—3. The power to hire shall remain with the employer, but in cases where discrimination on account of union membership is charged, the impartial chairman shall have the right of review; and if facts are brought before the impartial chairman that appear to indicate that the labor policy of any house is calculated to undermine the union, he shall have the power to review that policy.

Power of Discharging.—4. The power to discharge and suspend employees remains with the employer, but it is agreed that this power will be exercised with justice and

due regard for the rights of the workers; and if any worker feels that he has been unjustly treated in the exercise of this power, he may appeal to the labor adjustment board hereinafter mentioned, which shall have the power of review in all such cases.

Changes in Shop Management.—5. The right of the employer to make changes in shop management and methods of manufacturing is recognized, such changes to be made without loss to the employees directly affected.

No Strikes or Lockouts.—6. There shall be no strikes, lockouts, or stoppages of work in any shop covered by this agreement.

Equal Division of Work.—7. The principle of equal division of work is recognized, and during slack seasons work shall be divided as far as practicable among all the workers in the shop.

Labor Adjustment Board.—8. The administration of this agreement is vested in a labor adjustment board, consisting of representatives of the employers and of representatives of the workmen, together with an impartial chairman selected by both parties. The representatives of the employers and the representatives of the workmen upon this board shall have an equal vote, regardless of the number of representatives of either side, and in case of a tie vote the impartial chairman shall cast the decisive vote. All disputes or differences over questions arising under this agreement which the parties hereto are unable to adjust between themselves shall be referred to the labor adjustment board for adjustment or arbitration. This board shall have full and final jurisdiction over all such questions, and its decisions shall be conclusive, except as may be otherwise provided by agreement of the parties hereto.

Except where the board itself shall otherwise determine, the chairman of the board shall be authorized to take original jurisdiction of all cases and controversies arising under this agreement and to adjust or decide them in accordance with rules of practice and procedure established by the board. Decisions of the chairman shall be binding on both parties. It is agreed that William M. Leiserson shall continue to act as chairman of the labor adjustment board.

9. The board shall have authority to make such rules, regulations, and supplementary arrangements not inconsistent with this agreement as may be necessary to carry into effect the principles of this agreement or to apply these principles to new questions whenever they arise. It may also define, describe, and limit the penalties to be imposed for the violation of any of the provisions of this agreement.

10. The expenses of the labor adjustment board shall be borne equally by both parties to this agreement.

Changes in Wage Scales.—11. Upon the petition of either party the labor adjustment board shall have the power to determine whether important changes have taken place within the clothing industry, or in industrial conditions generally, which warrant changes in general wage levels or in hours of work; and if it is decided that such changes are warranted, negotiations shall begin between the parties hereto. In the event of a disagreement, the question shall be submitted to arbitration.

12. Upon the petition of either party, any adjustment of wages of individuals or sections that may be necessary in order to remove serious and unjust inequalities in pay may be made at any time during the life of this agreement,

provided that no request for such adjustment shall be heard by the impartial chairman until he has been authorized to consider it by the labor adjustment board. A decision by the impartial chairman in such a matter shall take effect and operate during and after the first full work week after the date of the decision unless the parties otherwise agree.

Minimum Wage.—13. A minimum wage for all beginners in the industry and a probationary period during which the employer shall be free to discharge such help without question shall be fixed by the labor adjustment board.

Regular Working Hours.—14. The regular hours of work shall be forty-four per week, to be worked eight hours on the five days preceding Saturday and four hours on Saturday.

Payment for Overtime.—15. For work done in excess of the regular number of hours per day, overtime shall be paid at the rate of time and one-half.

Sanitary Control.—16. The labor adjustment board is authorized to exercise sanitary control over shops covered by this agreement, and it shall have authority to make regulations designed to protect the health and safety of the workers in the shops.

Abolition of Home Work.—17. It is agreed that home work shall be abolished and the labor adjustment board shall investigate and work out procedure to this end.

5. Strikes as War.—If collective bargaining is industrial diplomacy, then, in a very real sense, strikes are industrial war. Methods of reason and persuasion are abandoned for the appeal to force. The problem of the leaders of the men is to arouse in them a determination to win the strike which will not be shaken by short rations, lack of fuel, and

severe hardships. The leaders fill the minds of the men with a grim purpose to achieve certain demands. The demands are often much greater than the leaders have any hope of getting and are knowingly made so for the purpose of bargaining. The idea is to get what you want after the inevitable compromise has been made. The men are filled with propaganda to arouse a feeling of hatred and ill will against the employer. When the settlement has been made, there remain as a result of the struggle hostility and lack of confidence between employers and workers.

In the strike the workers leave their jobs and resist any efforts of the employers to fill them. The success of the strike depends upon their ability to tie up the industry. The employer, of course, tries to start up with other workers. These are called "scabs" or "blacklegs." The worker looks on the scab as a traitor to the working class. For the sake of the high wages offered, the scab betrays his fellow workers and helps the employer force them to work under conditions they do not think fair.

Picketing.—The strikers resort to picketing. The line between peaceful picketing, which is allowable, and picketing which is not peaceful is difficult to draw. Some judges are inclined to think that no picketing can be peaceful. In most cases persuasion is allowed. The strikers sometimes resort to violence. Frequently the strikers say that the employers order the violence or destruction of property in order to alienate public sympathy. Street-car strikes in particular are characterized by violence, because of the necessity of wide distribution of the men. Perhaps an analogy may be drawn between violence in strikes and slugging in football. Both are condemned by right-thinking people. But in both cases the activity appears more hei-

nous when done by an opponent. The strike may be won or lost, or it may be settled by arbitration, which will be considered later.

6. The Boycott, the Union Label, and Other Activities.—The boycott is the refusal to patronize and the attempt to keep others from patronizing one with whom the labor organization has a disagreement. The effectiveness depends upon how serious an inroad is made upon the business concerned. A boycott would probably be more effective against the *New York American* than the *New York Times* because more unionists read the former paper. Secondary boycotts carry the thing one step further. An attempt is made to boycott all who trade with the boycotted person. The courts ordinarily hold this secondary boycott to be unlawful.

The Union Label.—The idea here is that by means of the label every one may know that the article has been produced under union conditions. The unions urge that all persons should buy only union-label goods. Thus, pressure is put upon firms to unionize their plants as a condition of being able to sell their product.

Other Activities of Unions.—The unions carry on certain social and insurance activities. The unions hold “grand balls,” picnics, and other social affairs. The unions collect dues from their members. Part of the dues go to the payment of the officers, the balance goes for various benefits. The principal benefit is the payment received while out on strike. By means of the strike benefit the unions attempt to enable the strikers to hold out as long as is necessary to win the strike. Many of the unions have a small funeral benefit. The Brotherhoods of Locomotive Engineers and Locomotive Firemen have substantial life-insurance bene-

fits. Usually the unions have a small out-of-work benefit. Some of the unions have a sickness benefit. A few provide for superannuated members.

7. The Open and Closed Shop Controversy.—The disputants do not always use the open and closed shop with the same significance. Perhaps the best contrast is obtained if we define the closed shop as one in which all of the men employed belong to the union and union membership is required for employment; and the open shop as a non-union shop where union membership is a bar to employment.

The argument for the closed shop runs as follows: Labor organizations are needed because of the inequality of the bargaining power of the employers and workers. To make the unions effective they must have control of all of the workers, and they cannot have this control if men not members of the union can get employment.

The open-shop argument is composed of two parts. One is a general attack on trade-unions and all of their works; and the second is the assertion of the natural right of the worker to work when and where and under what conditions he pleases, and the correlative right of the employer to hire and fire as he pleases.

No general judgment is possible. If the union is decent, that is, if it is not monopolistic and does not prevent qualified men from joining and does not try to abuse its power, then probably the closed shop is preferable.

8. Trade-Union Leadership.—The problem of leadership for trade-unions in the United States has been made more difficult by the opportunities for advancement open to the laborers. Mr. Charles M. Schwab is a born leader, but instead of staying in the laboring class and leading

them he became an entrepreneur. We expect to find all sorts of leaders of trade-unions just as we find all sorts of men in other positions. There is the grafter type. Robert P. Brindell built up a Building Trades Council in New York City and used it as a method of holding up contractors and builders. Unless they paid him bribes, he would call strikes and hamper the building projects.

Andrew J. Fureuseth, of the International Seamen's Union, is of a different type. He impresses people as being absolutely sincere and self-sacrificing in his efforts to improve the conditions of seamen. He is one of the best-informed men in the country on maritime law.

There is danger that the leaders may come to think that the movement exists only for the purpose of providing salaries for themselves. Members may be considered mere dues payers. The officers may become strongly entrenched in their positions; and, by manipulation, they may be able to resist any attempt to remove them from their posts.

Just as it is dangerous to generalize on the basis of political constitutions and laws, so it is not safe to follow union constitutions without checking up the working in actual practice. For example, the walking delegate or business agent, who is supposed to see that the union rules are observed, according to most constitutions has little power; he acts only with the authorization of the union. In practice, however, the walking delegate, in times of difficulty, is frequently given almost autocratic power.

9. Employers' Associations.—Naturally, the organization of the workers has been met by organization of the employers. They have developed methods for combatting the methods used by the workers' organizations.

The *lockout* is the analogue of the strike. The employers refuse to give employment to the workers unless they agree to certain conditions. It brings the same test of staying power, and, of course, may catch the workers unprepared. The *black list* is a reply to the boycott. The black list is illegal, but no difficulty has been experienced in devising methods which are legal though they amount to a black list. Thus, some employers' associations maintain an employment bureau. In this bureau are kept records of all the men who work or have worked in the industry. When a man is discharged from a plant, the reason is indicated on the card. A man who has tried to promote a union would probably be reported as a "trouble-maker" or "agitator," and would be refused employment in the establishment of the other members of the association.

Types of Employers' Associations.—The militant type are anti-union: They refuse to deal with the unions and attempt to destroy them. The National Metal Trades Association is of this type. Some associations deal collectively with their workers. They are the counterparts of the national trade-unions. The Stove Founders' Association is of this type.

10. Arbitration and Conciliation.—The methods of arbitration and conciliation are proposed to lessen strife in industry. Conciliation consists in efforts of outsiders to bring the disputants together. Arbitration is the settlement of the dispute by reference to one or more persons, all or some of whom are supposedly impartial. Not infrequently arbitration takes place after a strike has been in progress some time; occasionally it is used to avert the strike. It is frequently the weaker side which proposes arbitration. They wish to give the public the impression

that they are so confident of the justice of their case that they are willing to have impartial persons decide. As a matter of fact, they fear that if the strike goes on they will lose, and they figure that in the inevitable compromise decision of arbitration they will get at least a little.

Compulsory Arbitration.—In Australia and New Zealand there have been developed systems of compulsory arbitration, the essential feature of which is the setting of wages by public authority. This was hailed by some as the ultimate solution of the labor problem, and New Zealand was called “a land without strikes.” This designation has not proved accurate, for strikes have occurred. And what is more, the penalties for unauthorized striking have not been enforced.

Organized labor in the United States is almost a unit in opposing compulsory arbitration. Labor organizations fear that any tribunal would be prejudiced against them, and they assert that compelling workers to labor under undesirable conditions is involuntary servitude.

The fundamental difficulty about arbitration is that there is no standard of fair wages which both sides accept as final.

11. The Kansas Industrial Relations Court.—Although this is called a court, it might better be termed a commission, since its decisions are not enforced in the ordinary way but are enforced by appealing to the regular courts. The law arose out of the difficulties occasioned by a coal strike in 1919. It represents the idea that consumers have a right to demand that employers and workers shall not cause consumers distress because they cannot agree on wages or conditions of employment. The law provides for “a court of industrial relations,” made up of three “judges”

appointed by the governor of the state for a three-year term. The court has jurisdiction in those industries which are connected with public interest. It may intervene in any industrial dispute in these industries on its own initiative, by the request of either party to the dispute, a complaint of ten citizens, or a complaint of the attorney-general of the state. The procedure of the court requires that the rules of evidence as recognized by the Supreme Court of the state are to be followed in investigation. The law lays down the principle to guide the court that labor is entitled to a "fair" wage and capital to a "fair" return. The difficulty involved in this compulsory determination of wage rates is the enforcing of the decision.

12. Organized Labor and the War.—During the war, organized labor was in a very strategic position. The labor leaders on the whole aided in the plans of the government for industrial mobilization. At the same time they were anxious to take advantage of their position to advance the interests of organized labor. Many of the strikes which occurred were not authorized by the higher union officials.

The great advance obtained was the practical recognition of the unions by the government. They were given representation on the commission which drew up the plan for the War Labor Board. This board was composed of five representatives of the employers, five representatives chosen by the American Federation of Labor, and two chairmen selected by the two groups. The two chairmen took turns in presiding. The aims of the board were to speed production and prevent cessation of work. The first idea was that the status quo with respect to labor organization should be maintained. Later, however, the unions were permitted to make gains.

The following principles were adopted as the basis of the activity of the board:

PRINCIPLES AND POLICIES TO GOVERN RELATIONS BETWEEN
WORKERS AND EMPLOYERS IN WAR INDUSTRIES
FOR THE DURATION OF THE WAR

There should be no strikes or lockouts during the war.

Right to Organize.—1. The right of workers to organize in trade-unions and to bargain collectively, through chosen representatives, is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employers in any manner whatsoever.

2. The right of employers to organize in associations or groups and to bargain collectively, through chosen representatives, is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the workers in any manner whatsoever.

3. Employers should not discharge workers for membership in trade-unions, nor for legitimate trade-union activities.

4. The workers, in the exercise of their right to organize, shall not use coercive measures of any kind to induce persons to join their organizations, nor to induce employers to bargain or deal therewith.

Existing Conditions.—1. In establishments where the union shop exists the same shall continue and the union standards as to wages, hours of labor, and other conditions of employment shall be maintained.

2. In establishments where union and non-union men and women now work together, and the employer meets only with employees or representatives engaged in said establishments, the continuance of such condition shall not

be deemed a grievance. This declaration, however, is not intended in any manner to deny the right, or discourage the practice, of the formation of labor-unions, or the joining of the same by the workers in said establishments, as guaranteed in the last paragraph, nor to prevent the War Labor Board from urging, or any umpire from granting, under the machinery herein provided, improvement of their situation in the matter of wages, hours of labor, or other conditions, as shall be found desirable from time to time.

3. Established safeguards and regulations for the protection of the health and safety of workers shall not be relaxed.

Women in Industry.—If it shall become necessary to employ women on work ordinarily performed by men, they must be allowed equal pay for equal work and must not be allotted tasks disproportionate to their strength.

Hours of Labor.—The basic eight-hour day is recognized as applying in all cases in which existing law requires it. In all other cases the question of hours of labor shall be settled with due regard to governmental necessities and the welfare, health, and proper comfort of the workers.

Maximum Production.—The maximum production of all war industries should be maintained and methods of work and operation on the part of employers or workers which operate to delay or limit production, or which have a tendency to increase artificially the cost thereof, should be discouraged.

Mobilization of Labor.—For the purpose of mobilizing the labor supply with a view to its rapid and effective distribution, a permanent list of the number of skilled and other workers available in different parts of the nation

shall be kept on file by the Department of Labor, the information to be constantly furnished (1) by trade-unions; (2) by state employment bureaus and federal agencies of like character; (3) by the managers and operators of industrial establishments throughout the country. These agencies should be given opportunity to aid in the distribution of labor, as necessity demands.

Custom of Localities.—In fixing wages, hours, and conditions of labor regard should always be had to the labor standards, wage scales, and other conditions prevailing in the localities affected.

The Living Wage.—(1) The right of all workers, including common laborers, to a living wage is hereby declared.

(2) In fixing wages, minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort.

13. Exercises.—1. Why is there more dispute about wages than about the other shares in distribution?

2. List the advantages and disadvantages in bargaining of each of the parties to the wage bargain.

3. What sets the limit to the possibility of increase in wages by union activity?

4. Draw up a list of the grievances of labor. Which can be remedied by union activity?

5. How do unions affect the efficiency of their members? Explain carefully.

6. What are the difficulties in organizing unions among farm laborers? women? casual workers?

7. What is the economic basis for the area covered by the different federations of unions?

8. Why is it difficult for employers and workers to agree on a just basis for the determination of wages?

9. Should workers be permitted to bargain through outside agents?

10. Outline the strategy you would use to get an increase in wages through collective bargaining.

11. What rights has the public in the case of a strike?

12. Which is the better analogy, the strike as war, or the strike as a game?

13. If you were a labor leader, how would you go about winning a street-car strike?

14. If you were a clothing manufacturer, how would you go about breaking a strike of your employees?

15. What industries have you seen boycotted? How effective was the boycott?

16. In what lines of goods is the union label used on the best qualities? on the cheaper grades?

17. Does the union label add to the price of the goods?

18. Why are there grafters among labor leaders? Who is to blame?

19. What rewards has the honest labor leader?

20. Which are easier to organize, the workers or the employers?

21. Which would you expect to win in a contest between workers and employers, if:

(a) both are unorganized?

(b) the laborers are organized and the employers unorganized?

(c) both are organized locally?

(d) the laborers are organized nationally and the employers locally?

(e) the laborers are organized locally and the employers nationally?

(f) both are organized nationally?

22. Indicate the methods developed by the employers' associations to meet the methods of the labor-unions.

CHAPTER VIII

LEGAL REGULATION OF THE CONDITIONS OF EMPLOYMENT

1. The Reasons for Regulation. 2. Sanitation. 3. The Regulation of the Labor of Children—Hours—Age. 4. The Regulation of the Employment of Women—Hours—Night-Work—Prohibited Employments. 5. The Minimum Wage for Women and Children. 6. The Regulation of the Conditions of Employment of Men—Hours. 7. Exercises.

There are two classes of labor legislation: regulations of the conditions of labor, and social insurance. The first type will be discussed in this chapter, and the social insurance will be taken up in a later chapter.

1. The Reasons for Regulation.—The basis of this regulation is the experience that the individual workers are unable under the present complex organization of industry to enforce demands for improvement of conditions. The workers deal primarily with foremen or bosses, and the result of insistence on improved conditions would ordinarily be the loss of their positions. So, in order to protect the workers and indeed to protect the high-minded employers from the unfair competition indulged in by the less high-minded, the state finds it necessary to step in to set certain levels of competition with reference to the conditions of workshops.

2. Sanitation and Safety.—The ideal here is that the conditions in the workshops shall be such that the workers' health and efficiency shall not be impaired by working in them. Many employers have discovered that money spent in improving the working conditions repays itself in in-

creased output, but some employers have not discovered this and so the law must be used to enforce certain minimum standards. Proper light and heat and ventilation, of course, are necessary for efficiency. In occupations where the process involves the collection of dust, it is necessary to provide for the removal of this dust. Thus, in grinding and polishing metals, provisions can be made for the removal of the dust by suction to prevent the worker from inhaling it.

Safety Devices.—Great advances have been made recently in the development of safety devices. The hazards of industry have been brought to the attention of the people by the records of the accidents which have been kept as the result of the development of workers' compensation laws, which will be treated later. Many of the accidents were found to be preventable by putting guards on belts and putting coverings around the gears.

The great advance in methods of providing for sanitation and safety and the lack of technical knowledge on the part of the legislators make it inadvisable to attempt to make minute requirements in the law. The better way involves a law which lays down the general principles and provides for some sort of administrative board to make particular rulings from time to time. Thus, the New York law states the principle and the method of application:

"All factories, factory buildings, mercantile establishments and other places to which this chapter is applicable, shall be so constructed, equipped, arranged, operated and conducted in all respects as to provide reasonable and adequate protection to the lives, health and safety of all persons employed therein. The industrial board shall, from

time to time, make such rules and regulations as will carry into effect the provisions of this section."

3. The Regulation of the Labor of Children.—*Regulation of Hours.*—In 1920, twenty-six states and the federal law provided that eight hours should be the maximum work for children. Often the laws except domestic service and work in agriculture. Sometimes they exclude canneries and stores. The fight against state legislation has often been cleverly carried on by playing off one state against another. That is, the employers in one state complain that it is not fair to subject them to stricter regulations concerning the use of child labor than those which apply to their competitors in other states. There is no doubt about the question of the constitutionality of such laws. About forty states prohibit night-work of children under sixteen. Usually the laws forbid working between the hours of 7 P. M. and 6 A. M. The exclusion of children is on the basis that working might cause injury to life, limb, health, or morals. The question of constitutionality has been raised in connection with the federal law. In 1916, a law was passed regulating the working of children by excluding from interstate commerce products upon which they had worked in violation of the law. This law was declared unconstitutional on the ground that the control of Congress over interstate commerce did not extend to the manufacturing of products for interstate commerce. In 1919, a second attempt was made to enforce certain standards, such as: no work under the age of fourteen; in the ages of fourteen to sixteen work should be limited to eight hours a day and forty-eight hours a week with no night-work; no child labor in mines under sixteen. This law was passed under the federal power of taxation. The

proposers of the law hoped to control child labor by making it unprofitable for manufacturers to use child labor. It provided for a tax of 10 per cent on all goods produced in violation of the law. The constitutionality of this law has been questioned.

Regulations with Respect to Age of Children.—Most of the state laws provide that no child under fourteen shall be allowed to work in any gainful occupation. Some states provide that no child under sixteen shall work in certain hazardous occupations, and that no child under eighteen shall work in extrahazardous occupations. The child of the poor widow is sometimes exempted from the application of the law. This exemption seems to be very illogical. The whole purpose of the legislation is to guarantee to every child the chance to develop into a normal useful citizen. The accident of having a poor widow for a mother should not deprive the child of his birthright. The occupations which are frequently counted as hazardous are cleaning and oiling machines; working with machine-saws; stamping, grinding, and mixing machines; working with dusts and poisonous acids. The extrahazardous occupations frequently include mines, blast-furnaces, railroads, and explosives. In New York the age for night messengers is set at twenty-one, on the ground that the work is dangerous to morals. Frequently, there is less legislation about the street trades. Often newsboys start at twelve years of age, and peddling may often be done at fourteen. Those who are interested in the promotion of child-labor legislation wish to raise these standards and to make the limit fourteen years in the case of boys and sixteen for girls, in order to assure better physical development and more education. Some states require a physical examination

on the ground that it seems logical to determine that the child is physically able for the work which it wishes to do. The medical records in the schools would help. Not only should there be a physical examination before the child starts to work, but there should be subsequent examinations to make sure that the work is not proving injurious. It is obvious that the purpose of child-labor legislation must cause a tying up of the educational requirements with the requirements concerning the age at which the child may go to work. About one-half of the states require by law the completion of at least eight grades, but the enforcement is often lax. It is sometimes difficult to establish with certainty the age of a child, particularly if the child itself and the parents are anxious to violate the law. The birth certificate, baptismal records, school records, all, may be used. Some of the states which have developed the legislation have a system of work certificates. The work certificate is usually issued by some one connected with the school system. It is sent from the school authorities to the employer; and when the child stops work it is to be returned to the school authorities.

In New York State, the law provides for work certificates issued by the Department of Health, or health commissioner, or some one designated by them. Medical inspectors may order a physical examination of children between the ages of fourteen and sixteen who work in factories or mercantile establishments. If the child is found to be physically unfit to be employed, the employment certificate is cancelled. Then the child cannot work until the age of sixteen is reached, or until a new examination shows that the infirmities have been removed. Children are not allowed to work more than eight hours in any one day or

more than forty-eight in one week. Boys twelve to fourteen years old may sell papers after 6 A. M. and before 8 P. M. if they get a permit at the request of their parent or guardian approved by the principal of the school they attend. This applies to cities of the first, second, or third class.

4. The Regulation of the Employment of Women.—
Hours of Labor.—In 1920, all but six states had some limitation on the hours of labor of women. In most of the states, the number allowed was less than sixty a week. Usually the law excepts work in homes or on farms. In some states the regulation applies merely to cities and towns. In those states where the canning industry exists, it is frequently exempted from the application of the law. This is done on the ground that the perishable product must be handled when it comes in in order that loss may be prevented. Some of the early laws were almost nullified by allowing overtime. Now some allow overtime for such things as the stoppage of machinery, or at such times as the Christmas holidays. It is well to provide for variations in the number of hours allowed in different businesses. The approved method of doing this is to have a commission which sets after investigation the number of hours allowed. The laws have been upheld as constitutional on the ground that it is necessary to protect the health of women in order to preserve strength and vigor to the race.

Night-Work for Women.—In 1920, twelve states prohibited night-work for women. The common form of prohibition is that no woman shall work between hours of 10 P. M. and 6 A. M. The idea back of this regulation is that if women work at night they do not get proper rest in the daytime, the time during the day being often taken up

with housework. The eye-strain involved in working with artificial light is great, and there are moral dangers often in going and coming from work. The United States Supreme Court has not yet passed on the constitutionality of such laws.

Prohibited Employments.—Some states prohibit the working of women in mines, and in some processes, such as polishing. New York forbids their employment as core-makers in foundries where the cores are baked in the room in which they are made.

5. The Minimum Wage for Women and Children.—The application of the minimum wage has been justified ordinarily on the ground that it applies to certain groups of workers who, because of their weak bargaining position, may be exploited by the employers. Fifteen states now have laws applying to women, or to women and children. Ordinarily in this country men prefer to have wages set by union activity, and there is doubt about the constitutionality of such laws for men. The laws are usually stated in general terms, such as providing that women shall get a wage sufficient to "maintain health and welfare." The best plan for administering the law seems to be the commission plan. A state commission, either directly itself, or through subordinate commissions on which representatives of the employers and the workers and the public are included, holds an investigation of the particular industry. The wages have not on the whole been extremely high. The usual plea is that the industry cannot afford to pay high wages. The public is coming to take the position, however, that no industry should exist which cannot pay its own way. No industry should expect other industries to contribute to the support of its workers. Es-

pecial provision is frequently made for handicapped workers and for learners. This provision usually is that some representative of the commission may grant what amounts to a license to work to the person after an investigation, and can set the proportion of the full wage which the person is to get. The justification for this provision is the fear that employers if unregulated might get all of their work done at less than the standard rate by the use of the handicapped or by the use of learners. In most of the states, penalties for violation are provided; however, in Massachusetts the enforcement of the law is left to public opinion.

6. The Regulation of the Conditions of Employment of Men.¹—There has been less of this than regulations for women and children. The men have been considered capable of taking care of themselves.

Hours of Labor.—The constitutionality of general laws regulating the hours of labor of men in all industries has been doubtful. There is no question of the power of the government to determine the conditions of employment on all public works. So, the federal government, most states, and most cities have laws prescribing eight hours as a day's work. In other than public work some ground must be found for the limitation of hours. Thus, in railroad transportation, to prevent accidents men handling trains are not allowed to work more than sixteen hours continuously. In mining, because of the danger involved, sixteen states have laws limiting the hours of labor to eight. Some states have laws regulating the hours for workers in smelters, and others for workers in tunnels where the time allowed

¹ Cf. Commons and Andrews, *Principles of Labor Legislation*, pp. 247-271.

depends upon the air-pressure in which the work is carried on. The Oregon law placing the limit of ten hours a day on all labor has been upheld by the Supreme Court of the United States.

7. Exercises.—1. Why not leave sanitation and safety to the self-interest of the employers?

2. To what extent are workers to blame for accidents?

3. What interest has society as a whole in the prevention of accidents?

4. What is the best method for legislating about sanitation and safety?

5. Why not leave children to the care of their parents?

6. Why is night-work bad for children?

7. Explain the attempts to get federal regulation of child labor.

8. What would you suggest as a better criterion than age for deciding whether or not a child shall be allowed to work?

9. Why are boys allowed to go to work earlier than girls?

10. What connection should there be between the compulsory educational requirement and the regulations about child labor?

11. Why should women in homes be allowed to work longer than those in factories?

12. How can you justify the limitation on the freedom of a woman to work as long as she wishes?

13. What are the objections to night-work for women?

14. In these days of equal rights for women, why should they be prohibited from working in some employments?

15. If wages are "the discounted marginal product of labor," what will be the effect of setting by law a minimum wage for women? Make various assumptions as to the rates set.

16. Should the minimum wage for women cover more than the physiological minimum of subsistence?

17. Should the minimum wage for women be enough to support more than the woman herself?

18. Why are special provisions in minimum wage laws necessary for the handicapped and learners?

19. What is the constitutional difficulty about labor legislation for men?

20. Why do we have agitation for eight-hour-day laws? Why not seven, six, five, four, or three hour day laws?

21. On what grounds are laws limiting the hours of work of men in particular occupations based?

CHAPTER IX

LIFE AND PROPERTY INSURANCE

1. The Function of Insurance. 2. The Insurable Risk. 3. The Moral Hazard. 4. Fire Insurance—Schedule Rating. 5. Other Property Insurance—Marine Insurance—Boiler Insurance—Title Insurance. 6. Life Insurance—Calculation of Premium—Ordinary Life—Limited-Payment Life—Endowment—Dividends—Life Insurance and Investment. 7. Exercises.

1. The Function of Insurance.—Insurance is the co-operative bearing of losses. Sometimes the insurance company is organized on a mutual basis. But, even if the company is organized by individual enterprise and run for private profit, the effect is the same. Individuals take a small, certain loss (the premium paid) in order to protect themselves from the disaster which would follow if the big, uncertain loss should happen to come on them. Thus, we may say that, in effect, those whose houses are insured against fire and who have no fires pay the loss of those who have fires. For a few dollars a year, each householder can be protected against loss of \$1,000 by fire.

The business man faces many hazards. Some can be insured against; for some of the risks the speculative markets provide a means of hedging which is the equivalent of insurance; for some, however, there is no insurance and the business man must bear the risk.

Insurance plays an important part in many financial transactions. Whenever property forms the security for a bank loan or the basis of a bond issue, it must be insured. Obviously no one would wish to loan money on security which might vanish in a few minutes.

To understand insurance we must grasp the meaning of insurable risk and the moral hazard in insurance.

2. The Insurable Risk.—The meaning of this term may be approached from the common idea of the “law of averages.” If we flip a coin a large number of times, we may expect heads and tails to come up an equal number of times. Nothing is more uncertain than whether “Babe” Ruth will get a hit a particular time at bat. But when we take even a short period, we can count on his making a high percentage of hits and a dependable number of home runs. The United Cigar Stores count the people passing given points and locate the store on the basis of the investigation. They know that a certain percentage will become customers. Storekeepers know that a certain percentage of their customers will want $15\frac{1}{2}$ collars.

Now there are certain hazards which we may say follow the law of averages and so give an insurable risk. For example, nothing is more uncertain than the question of whether a particular building will burn, but if we take a large number of widely distributed buildings we can predict with great accuracy the number which will burn in a year. Thus, if one out of a thousand houses burn each year, a mutual company with volunteer officials could insure the houses at the rate of \$1 for each \$1,000 insurance.

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Again, the duration of life of any one individual is very uncertain, but if we take large groups of men we can predict the average duration of life and so can calculate the amount which must be paid as a premium to accumulate enough to make a payment of \$1,000 at the death of each of the insured.

We may say, then, that an insurable risk exists if the

hazard occurs with predictable regularity. Therefore, the extension of the field of insurance depends on the growth of definite information about hazards.

3. The Moral Hazard.—Even if an insurable risk exists it may not be feasible to meet it by insurance, because of the moral hazard. The moral hazard is that the event will take place not accidentally, but by deliberate intention of the insured. Thus, the moral hazard in fire insurance is that the insured will set fire to his own premises. The moral hazard in life insurance is suicide. If we cannot control the moral hazard it is obviously impossible to provide insurance. Especially with new forms of social insurance it is difficult to predict to what extent the moral hazard will hamper. Thus, in unemployment insurance there is danger that a man might prefer the insurance payment without working, to full wages and working.

4. Fire Insurance.—In fire insurance we say there is an insurable risk because if we take a large group of houses or buildings we can predict the number of fires which will occur with sufficient accuracy to enable us to find out how much we must charge each individual in order that the loss (or at least part of it) of those whose houses are burned may be paid to them. The premium, as it is called, in fire insurance then involves the payment for the loss and also the amount necessary to compensate the men who carry on the business. The first amount is called the net or mathematical premium, and the sum of the first and the second, the gross premium. The moral hazard in fire insurance is that the fire occurs, not as an accident, but as the result of the activities of the owner. In other words, we say that the moral hazard in fire insurance is arson.

Fire insurance is particularly instructive because of the

careful and accurate gradation of the premium to the risk. A widely used method of fixing premiums is to follow the Universal Mercantile Schedule.¹ This schedule starts with the standard city which comes up to certain specifications with regard to water system, fire-fighting equipment, paving of streets, police, building law, and fire record. In this standard city, the standard building must come up to specified requirements as to number of stories, and methods of construction. There is a basis rate of 25¢ per \$100 charged for the standard building in the standard city. The actual rate is found by adding to the rate for all failures to come up to the required standard and subtracting from it for exceptionally good features. Thus, if the city has no fire department, the rate is increased by 32¢. A shingle roof adds 15¢. Open elevators add 12¢. Hot-air-furnace heat adds 3¢. If the street is inaccessible and unpaved, it adds 10¢. Terra-cotta and cement chimneys add 50¢. For exceptional construction and conditions, deductions are allowed. For no cellar, deduct 10 per cent. If the grade floor is fireproof, deduct 10 per cent. If metallic studs and lathing are used, deduct 10 per cent. An automatic fire-alarm causes a deduction of 5 per cent. Automatic sprinklers cause deductions of from 25 to 40 per cent. Next must be considered the problem of how the building is occupied. Each possible use has an effect on the hazard; a retail drug-store adds 10 per cent. Deductions are made for nearness to hydrants and special fire-fighting appliances. Thus it is seen that the attempt is made to allow for everything which may have a bearing on the chance of causing damage by fire.

The better-managed companies watch carefully the distribution of their risks. They will not take more than a

¹Heubner, S. S., *Property Insurance*, pp. 193 ff.

certain number of risks in one city. In the case of New York City they divide the city into districts and restrict the amount of insurance they write in each district. They aim, thus, to avoid the conflagration hazard, the danger of a large section of a city burning.

5. Other Property Insurance.—*Marine Insurance.*—In land transportation, the carrier assumes the risks. In water transportation, the shipper must provide the insurance. Thus, in the development of credit instruments in foreign trade the marine-insurance policy is one of the important documents. In the matter of organization marine insurance is notable because of the large amounts which are provided by individual underwriters. However, insurance companies are now obtaining an increasing share of the business.

Boiler Insurance.—This type of insurance provides against the hazard of boiler explosion. It is very interesting because almost all of the premiums received by the companies are spent in inspection and prevention of accidents. The whole theory of the practice is that, with proper care, no explosions need occur.

Title Insurance.—In the older sections of the country where the real estate has passed through many hands, there is always a chance that there may be a flaw in the title to the property. For a long time abstracts of titles have been common. Now companies will insure the title. The companies assume that their examination of the title is so thorough that there will be no loss. They agree to pay losses which result from errors in examination or defects which were not discovered. Title insurance is of great importance in mortgage loans. It enables a lender to make sure that the property put up as security can be counted on if he wishes to foreclose.

6. Life Insurance.—This type of insurance is rather more complicated because it is insuring against a hazard which is bound to occur. One may carry fire insurance for many years and never have a fire, but ultimately we all must die. Fire insurance is ordinarily carried on the basis of insurance by the year or for a short number of years, but the life-insurance contract ordinarily runs for life or a long period of time. A policy may run for seventy years or even longer. Life insurance satisfies the requirement that there must be an insurable risk. That is, if we take a large enough group of men, we can predict the number of men at different ages who will die each year.

In order to make clear the essential nature of life insurance, a brief description of a method of computing life-insurance premiums may be given. The method given is not the one used by the actuaries in their computation but is mathematically equivalent.

We start with the American Experience Mortality Table. This table aims to show what deaths would take place in a group of 100,000 males aged ten years old. The computation of the premium for age thirty-five will be shown, so the first, the last entries in the table, and a part near thirty-five will be given.

SELECTION FROM THE AMERICAN EXPERIENCE
MORTALITY TABLE

Age	Number Living at the Beginning of the Year	Number Dying During the Year
10.	100,000	749
11.	99,251	746
35.	81,822	732
36.	81,090	737
37.	80,353	742
95.	3	3

To start with we find the *net single premium*. It is called "net" because it does not allow for the expense of doing business. It merely gives the amount, which if paid by a group of men aged thirty-five, would, along with interest accumulations, furnish funds enough to give the beneficiaries of each policyholder \$1,000 when each death occurred. We assume that the premium is paid at the first of the year and the death claims at the end of the year. It is assumed that 3 per cent can be earned on the invested funds. This rate seems low, but the insurance company must play safe. The contract may run for seventy years, and many things may happen to the interest rate in that time. We find the present worth of the amounts of money needed to make the payments each year. Seven hundred and thirty-two die the first year. The present worth of \$732,000 at 3 per cent true discount is found by dividing by 1.03 or multiplying by .970874. We could make a table for all of the years after thirty-five as follows:

Age	Amount Needed to Pay Policies	Present Worth at 3% Discount Compounded Annually
35.....	\$732,000 x .970874	= \$710,679.77
36.....	737,000 x .942596	= 694,693.25
95.....	.....	.....
Total.....	.....	<u>\$34,355,666.83</u>

Thus \$34,355,666.83 would provide \$1,000 at the death of each of the 81,822 men who started at age thirty-five. Dividing the amount by 81,822, we find that each would need to pay \$419.88 as the net single premium. It is called a single premium because it is paid once for all.

However, most men do not wish to pay for their insurance all at once. They prefer to pay in yearly instalments. In what is called an *ordinary life* policy, the payment is continued until death. We attack the problem of computing the net annual premium by finding how much the present worth of a payment of \$1 a year from all of the survivors would be. We assume the payment is made at the first of the year.

PRESENT WORTH OF \$1 A YEAR FROM SURVIVORS

Age	Total Payment	Present Worth
35.....	\$81,822 x 1	= \$81,822.00
36.....	81,090 x .970874	= 78,728.17
37.....	80,353 x .942596	= 75,740.42
95.....	.....	.....
Total.....	.....	\$1,629,648.77

If \$1,629,648.77 is the total from a contribution of \$1 a year from each survivor, in order to pay for all the claims we would need 34,355,666.83 divided by 1,629,648.77, or \$21.08 as a net annual premium.

To get the premium actually charged by the insurance companies, an expense loading is added. The law allows a loading of one-third the net premium.

Net premium.....	\$21.08
Loading.....	7.03
Gross premium.....	\$28.11

Limited-Payment Life.—Many men do not wish to keep on making payments as long as they live. They prefer to complete the payments during the time of their maximum earning power. Perhaps the commonest period for pay-

ing premiums is twenty years. To calculate the premium necessary, we find the present worth of \$1 a year from the survivors as before but stop after twenty payments have been made.

PRESENT WORTH OF \$1 A YEAR FROM SURVIVORS

Age	Total Payment	Present Worth
35.....	\$81,822 x 1	=\$81,822.00
36.....	81,090 x .970874	= 78,728.17
37.....	80,353 x .942596	= 75,740.42
54.....	.....	.....
Total.....	.....	\$1,150,932.79

It is interesting to see that the present worth of the twenty payments, \$1,150,932.79, is over two-thirds of the amount for the sixty years in the former case. The present worth of the payments of forty years after age fifty-five is small because of the heavy discount involved and because of the lessened number of survivors. Dividing as before the amount necessary to make the \$1,000 payments at each death by the present worth of \$1 a year from all the survivors, we get the net premiums as follows:

$$\$34,355,666.826 \div \$1,150,932.798 = \$29.85.$$

The New York law allows a loading equal to that of the ordinary life plus one-sixth of the amount the net premium is greater than the net premium on the ordinary life policy:

Net premium.....	\$29.85
Loading.....	8.49
Gross premium.....	\$38.34

Twenty-Year Endowment.—This is not a straight insurance policy. It involves two provisions. If the holder

dies within the twenty years, his beneficiary gets the \$1,000 insurance. If the holder is alive at the end of twenty years, he gets the \$1,000. So, we must provide insurance for those who die and endowment for those who live.

We need a new calculation of the cost of insurance, since the policy now covers only twenty years:

AMOUNT NEEDED TO PAY INSURANCE

Age	Total Payment	Present Worth
35.....	\$732,000 x .970874	= \$710,679.77
36.....	737,000 x .942596	= 694,693.25
54.....	.....	.....
Total.....	.....	<u>\$12,553,331.24</u>

The table shows that there will be 64,563 survivors. The present worth of \$1,000 to be paid to each of them at the end of twenty years is \$35,746,983.59. Dividing each of these totals by \$1,150,932.80 (the present worth of \$1 a year from each of the survivors), we get the net premiums for the insurance and the endowment.

Net annual premium for the insurance.....	\$10.91
Net annual premium for the endowment.....	31.06
Net annual premium for the loading.....	<u>9.94</u>
	\$51.91

The loading is limited by a Wisconsin law to one-third of the net premium for the limited-payment life for the same period (\$29.85), so it cannot exceed \$9.95. Endowment policies are also written for other periods than twenty years.

There are many other forms of policies suited to all sorts of needs. The foregoing account illustrates the principles upon which they are all calculated.

Life insurance does not consider the variations in risks as minutely as fire insurance does. Each applicant must pass a medical examination. If he comes up to certain standards, he is insured; otherwise most companies will not insure him. Some companies insure substandard risks by charging an extra premium, based on the character of the impairment. Other companies agree to insure a man of forty with certain impairments if he pays the premium for age fifty. The insuring of the impaired is being done increasingly as more definite information about the effect of impairments on the length of life becomes available.

Dividends to Policyholders.—Many insurance companies nowadays are carried on under the participating plan. That is, the insurance company aims to provide insurance to the policyholder at as low rate as possible. The company takes the policyholder only after a medical examination. This means that the actual mortality experienced will probably be less than that predicted in the mortality table. Then, since the company must play safe with reference to the amount of interest they can earn, usually over long periods of time they earn a higher rate than that on which the premium was calculated. Then often, they also conduct their business at less cost than they allow for in the expense loading. Savings from all of these sources, that is, less mortality than was expected, a higher rate of interest earned than was calculated upon, and less expense than was allowed for, are returned to the policyholders in the form of what are rather incorrectly called dividends. Dividends are really a return of overcharges.

Life Insurance and Investment.—The function of insurance as co-operation in bearing losses is indispensable. If a man has many pieces of property widely scattered, he

may carry his own fire insurance. That is, he may take the risk, and it is assumed that the fire losses will not be greater than the premiums he would be obliged to pay to the insurance company, and so he can meet them if he sets that amount aside. But a man cannot insure his own life. There is no way in which he can get the law of averages to work. He may set aside the amount of the life-insurance premium, but if he dies soon that would be of small use to his beneficiary. Unless he has abundant means to provide for his family, he must get the co-operation of others in providing insurance. Insurance as an investment does not have the same indispensability. It has some things in its favor. It is safe, if taken out in any of the big, well-known companies. Many find it a convenient method of saving small sums regularly which would be difficult to invest on account of their smallness. Some people need the compulsion which comes from the engagement to pay regularly, and the services of the life-insurance agent to see that the payments do not lapse. The chief objection to insurance as an investment is the rate of return, which, because of the expense of conducting the business, is low, even when the safety is allowed for.

7. Exercises.—1. Explain carefully how insurance is co-operative bearing of losses when it is carried on by stock companies.

2. List the risks to which the business man is exposed. Against which of them can he insure himself?

3. Is there an insurable risk in the ones against which the business man cannot insure himself?

4. Is there an insurable risk in the chance of a student failing in Economics 2? If so, how would you determine it?

5. What would be the moral hazard in the insurance mentioned in question 4?

6. How does business depression affect the moral hazard in fire insurance?

7. Is it fair for two men to get the same benefit from life insurance when one pays premiums for two years and the other for fifty years?

8. How much life insurance does a business man need?

9. Discuss life insurance as an investment.

10. What effect on the amount of dividends on life-insurance policies would you expect from (a) the higher rate of interest now obtainable on investments? (b) the influenza epidemic? (c) the increase in wages and salaries?

11. Why will not people insure their lives without having a life-insurance agent persuade them?

12. What is the banker's interest in fire insurance?

13. Explain how it is possible for a large corporation to carry its own fire insurance.

14. Can a wealthy man carry his own life insurance?

15. Does fire insurance eliminate the loss due to fires?

16. What are the dangers of local mutual fire-insurance companies?

17. What are the advantages of country-wide mutual fire-insurance companies? Are there any disadvantages?

18. What is the importance of marine insurance in foreign trade?

19. Explain the system of conducting title insurance.

20. What is the theory underlying the conduct of boiler insurance?

21. In what respect is insurance similar to gambling? In what respect dissimilar?

22. "Insurance works toward a greater equality in the distribution of wealth." Is this true? Why or why not?

CHAPTER X

SOCIAL INSURANCE

1. The Need for Social Insurance. 2. Responsibility for Accidents Under the Common Law—Contributory Negligence—The Burden of the Occupational Risks—Assumption of Risk—The Fellow-Servant Doctrine. 3. Employers' Liability Laws. 4. Workmen's Compensation Laws. 5. The New York Compensation Law and Other Laws—Injuries Compensated—Industries Covered—Persons Compensated—Burden of Payment—Compensation for Death—Compensation for Disability—Carrier for the Insurance. 6. Health Insurance—Hazards of Industry—Health Insurance in Europe—Benefits. 7. Old-Age and Invalidity Insurance—Old-Age Pensions in England—The German System. 8. Unemployment Insurance—The Ghent System—Out-of-Work Benefits of Labor-Unions—The British System. 9. Exercises.

1. The Need for Social Insurance.—Insurance has been defined as the co-operative bearing of losses. It may be carried on by private companies. We speak of social insurance when the state carries on the insurance, subsidizes it, or makes it compulsory. The reason for the compulsion lies in the failure, or inability to insure, of those subject to some hazard.

Typically, social insurance applies to some hazard to which workmen are exposed. Their wages are relatively low, and it is difficult for them to provide anything to meet the hazard of sickness, unemployment, or death. When such a disaster comes to a family, it often means the break-up of the family, or dependence on public or private charity. Once the dependence on charity is begun, it frequently means permanent dependence. Observation of such conditions has led many people to the conclusion that some remedial measures need to be taken. Compulsory insur-

ance has many advocates. They do not think that individual initiative will handle the situation.

Workmen's compensation is everywhere the commonest form of social insurance. It provides payments for accidents in industry.

2. Responsibility for Accidents Under the Common Law.—Under the common law, the employer usually escaped paying for losses due to accident because he could use certain defenses: contributory negligence, occupational risk, assumption of risk, and fellow-servant doctrine. These may be taken up in turn.

Contributory Negligence.—In most accidents, it can be shown that if the injured had done something or had not done something, the accident would not have occurred. So it is easy to say that the worker is partly to blame; and it was the law that the employer could not be held responsible, even though he had been negligent. The modern attitude is a frank recognition of the failure of the human body and human attention to function perfectly in the average individual. The laws now provide for compensation unless there has been *gross* negligence on the part of the injured man, and sometimes even when there has been such negligence.

The Burden of the Occupational Risks.—Some occupations have a greater hazard than others. The common law presumed that the man entering the employment understood its hazards and assumed them, possibly because of some increase in pay. This may have been a fair assumption in the earlier, simpler economic organization which was characteristic of the period in which the common law took form, but it is certainly not true to-day. Wages are not always higher in dangerous trades, and even when

they are higher, they do not compensate for the added risk.

Assumption of Risk.—According to the common law, the employer was held responsible for providing safe working conditions. But there grew up a doctrine that if a worker continued to work with a machine that was not safe, he assumed the risk for any accidents which might arise from the defective machine. If a worker had complained about a machine which caused an accident, that fact was urged in the trial as proof that he knew of the defect and so had assumed the risk of working with the machine.

The Fellow-Servant Doctrine.—The common law relieved the employer of liability in case the accident was due in any measure to a fault of a fellow servant. This seems fair enough in a simple organization of society where a man could know personally his fellow servants and could watch out for the careless or refuse to work with them. But how can we say that an engineer running from New York to Philadelphia is responsible for knowing the frailties of all of the switchmen who might make mistakes while he is guiding a train between the two cities?

3. **Employers' Liability Laws.**—A first step in advance was taken in some jurisdictions by passing laws which made the employers liable for accidents. However, this brought but little relief, for employers insured their liability in casualty companies. An injured employee was forced to sue for damages. The worker rarely had the courage to antagonize the employer. If he did sue, the case would be long drawn, and if the worker won it would be appealed. The practical result was that only a very small part of the money the employers paid as premiums ever reached the workers as compensation. Even if the worker won, much

of the damages usually went to his lawyer. His financial condition often made it necessary for him to hire his lawyer on the contingent-fee basis.

4. Workmen's Compensation Laws.—For social insurance against accidents in industry, the laws are ordinarily called Workingmen's Compensation laws to distinguish them from the earlier Employers' Liability laws. The laws came relatively late in the United States. But once the movement started it quickly spread. Forty-two states enacted compensation laws in the years 1911-1919.

There can be no question about the existence of an insurable risk. Accidents occur in industry with predictable regularity. The yearly toll in the mines, on the railroads, and in other industries would make a gruesome list.

The moral hazard in accident insurance is the possibility that the worker will deliberately allow himself to be maimed in order to collect the insurance. Opponents of the system predicted that many such cases would occur. On the whole, experience has shown the fear to be groundless. The laws usually do not cover accidents due to gross negligence of the worker.

In our study of compensation laws we will follow the provisions of the New York law, pointing out the different practices of other states on various provisions.

5. The New York Compensation Law and Other Laws.¹—In the first place, the New York law is a compulsory law. With regard to the employer this means that he must make the payments specified in the law. With regard to the employee this means that the injured workman cannot sue the employer; he must be content with the compensation provided by the law. Fourteen other states have com-

¹ Cf. *Bulletin of U. S. Bur. of Labor Statistics* No. 272, p. 49.

pulsory laws and thirty-one states elective laws. Under the elective law, if an employer wishes he may refuse to accept the law. If he so refuses, then he, in most cases, cannot use the ordinary common-law defenses if an accident occurs. Without these defenses the employer has not much chance of winning the suits brought against him. Laws elective for the employee grant him the right to sue the employer instead of taking the compensation provided by the law, but allow the employer to use the old defenses, so that a good defense usually can be made.

Injuries Compensated.—Accidental injuries out of and in course of employment, and disease or infection naturally and unavoidably resulting therefrom, causing disability for more than two weeks, or death, unless caused by the wilful intention of the injured employee to bring about the injury or death of himself or another, or by his intoxication while on duty, are covered.

An amendment to the New York Workmen's Compensation law in 1920, §49-a, enumerates certain diseases which are to be compensated as such and regardless of any accidental origin. They are: anthrax, poisoning by lead, mercury, phosphorus, arsenic, wood alcohol, nitro and amido derivatives of benzine, carbon bisulphide, nitrous fumes, nickel-carbonyl, dope, gonioma kamassi; chrome ulcerations, epitheliomatous cancer or ulceration of skin or corneal surface of the eye due to tar, pitch, etc.; glanders, compressed-air illness, six diseases due to mining, and cataract in glass-workers.

The New York law is broader than the laws of most other states in its inclusion of diseases arising out of employment, or "industrial diseases," as they are called. Most of the other states insist on a narrow interpretation

of accident, which excludes anything which does not happen suddenly. The New York law and the laws of several other states also require payments for disfigurement, even though the accident caused no direct loss of earning power. Generally the states restrict compensation to cases which impair earning power.

Industries Covered.—The industries covered are hazardous employments, including extensive classified lists covering forty-five groups; also all other employments not so enumerated, in which four or more workmen or operatives are regularly employed, domestic and farm labor excepted. The exclusion of farm and domestic labor is found in nearly all states. It probably is the result of the political strength of the farmers, for certainly farming is an industry with much hazard, especially in harvesting and threshing. Much confusion arises over the question of which industries are hazardous. One might think that the fact of accident would indicate that the industry was hazardous. However, in New York the question is of little importance, since the provision about four or more workmen is very inclusive.

Casual labor is frequently excluded. No doubt this makes for administrative convenience, but surely the results of accidents are no easier to bear when they are the result of casual labor.

Many states follow New York in not including domestic labor. Perhaps, because of the difficulty of administering the law in such cases and the feeling that the occupations are not hazardous. In some states the act does not apply to establishments having less than some specified number of employees, from ten down to two. This makes for ease of administration, but does not protect the workers,

and in truth is but an indirect way of excluding farm and domestic labor.

If a New York employee of a New York company is injured on a piece of work which takes him to another state, he still can claim compensation. Much confusion has arisen in attempting to protect the workers on the railways, for Congress controls the part that is interstate commerce, and the states the part that is intrastate commerce. It is obviously difficult to determine whether the man is injured in interstate or intrastate commerce.

Aliens are covered as well as citizens, although, in their case, there is some limitation about the number of dependents.

Persons Compensated.—In private employment, all the employees in industries covered are compensated. Those in public employment are also included.

Burden of Payment.—In New York, as in the states generally, the entire cost is on the employer. The money for the compensation is paid by him. To a considerable extent, this cost merely takes the place of payments for liability insurance, costs of lawsuits, and donations to the injured which he was forced to make under the old system. If the payments are greater than formerly, it is expected that he will recoup himself by increasing the price of his product. The feeling is that consumers have no right to expect that workers or their families should bear the burden of accidents incident to the production of commodities. Some laws specifically provide that the payments shall not be deducted from the wages of the workers. In the long run it is impossible to determine whether or not the payments by employers cause wages to rise less rapidly than they otherwise would.

Compensation for Death.—In New York in case of death \$100 is allowed for funeral expenses. Then there is paid to a widow or dependent widower alone 30 per cent of the wages of the deceased, with 10 per cent additional for each child under 18. Dependent orphans under 18 receive 15 per cent each, as also do dependent parents, brothers, or sisters. The aggregate payments in no case can exceed $66\frac{2}{3}$ per cent of the wages of the deceased. Payments to widow or widower cease on death or remarriage or when dependence of widower ceases, with two years' compensation on remarriage. Payments to children, brothers, and sisters cease at 18 and to parents when dependence ceases. A serious limitation to the benefits arises from the provision that no wages in excess of \$100 a month are considered in the computation.

In other states, there are wide divergencies in the compensation. A common form bases the compensation on the weekly wage, giving various percentages according to the number and relationship of the dependents. In Iowa, 50 per cent of the wages is given to persons wholly dependent; however, not more than \$10 or less than \$5 a week. The payments run for 300 weeks. In other states the period varies; as 270, 350, and 500 weeks, and the percentages vary from 25 per cent to $66\frac{2}{3}$ per cent. Some states make the payment a multiple of the yearly wage. Kansas gives three years' wages to persons wholly dependent, and sets the maximum at \$3,800 and the minimum at \$1,400. Oregon gives the widow \$30 a month and \$6 a month for each child, with a maximum payment of \$50.

Most states have an allowance for funeral expenses; \$100 is the commonest limit.

Compensation for Disability.—The New York law provides medical and surgical treatment and hospital service

for 60 days, or longer where the conditions require; the costs are to be approved by the commission. In some other states, unlimited care is given. During the continuance of permanent total disability, $66\frac{2}{3}$ per cent of the wages are paid. Loss of both hands, arms, feet, legs, or eyes are considered permanent total disability. In temporary total disability the worker gets $66\frac{2}{3}$ per cent of his wages, but not over \$3,500 in all. In the case of permanent partial disability, $66\frac{2}{3}$ per cent of the weekly wages is paid for specified periods: thus, for loss of thumb for 60 weeks; for loss of hand, 244 weeks; for loss of foot, 205 weeks; for loss of an eye, 128 weeks. The payments are not to be more than \$15 a week except in case of the loss of a hand, arm, foot, leg, or eye, where they may be \$20 a week. The minimum is \$5 a week, or the employee's wages if they are less than \$5 a week.

The law specifies with great minuteness the various partial disabilities, distinguishing between the different fingers and joints of the fingers. Payments begin on the fifteenth day, but if the disability continues for more than forty-nine days compensation is allowed from the beginning.

Most of the states provide for medical and surgical aid, but often the amount is inadequate; one state sets the maximum at \$25. For total disability, the compensation is usually a fraction of the wages, ordinarily lying between one-half and two-thirds. Often limits are set, such as a minimum of \$3 to \$6 and a maximum of \$8 to \$16 a week. Very few of the states provide that the payments shall last until death. Some make limitations as to the number of weeks, such as 312, 400, or 500 weeks. Others set a total limit, such as \$4,000 or \$5,000.

Carrier for the Insurance.—In New York, the employer must give proof of financial ability to make the payments

(deposit of securities may be required), or must insure in the New York State Fund or a mutual or stock company.

The great problems in this connection are the cost and the method of making sure that the worker gets his compensation. Some states merely provide that the employer must pay the compensation. In such a case the employer frequently insures in a casualty company. Some of the casualty companies have made it a practice to fight most of the claims. Some states have voluntary or compulsory and exclusive state funds. Here the problem is to fix the premium rates for the various industries so that each industry will pay for its own accidents. Sometimes mutual companies are formed in given industries. These have the advantage of making it profitable to prevent accidents. On the whole, the compulsory state fund appears to give the greatest security to the worker at the lowest cost to the employer.

In some states insurance is not required. This situation may nullify the law, for if the employer goes bankrupt there may be no compensation. Also there are difficulties in enforcing the liability.

6. Health Insurance.—There is no question about the existence of an insurable risk with reference to sickness if wide areas and long times are considered. There are variations in the rate of sickness in different localities due to various climatic factors and conditions of living. If we took the state as our unit, probably we would get statistical regularity. The influenza epidemic illustrates the need for considering long periods of time.

The moral hazard in health insurance is malingering. Will some people pretend to be ill in order to get the insurance, or magnify small ailments? Obviously it is not so

easy to determine when a man is ill as to see that he has had an accident.

In the United States there is no social health insurance. The insurance is voluntary and private. Often local societies are formed which, of course, do not get wide distribution of risk. The largest amount of health insurance probably comes from lodges and social orders. The visits to sick members and the fraternal feeling eliminate most of the moral hazard. Some industries, notably railroads, have developed insurance funds. The usual plan is to deduct a certain amount from the wages of each employee. In return, the employee gets medical and surgical attention and a payment for the time absent from work. Private insurance companies will write health insurance, but this part of their business has not had a great growth.

Hazards of Industry.—Besides the ordinary problems of health, there are special hazards in industry. Certain broad classifications may be recognized.¹

First, dust. Dust may be mechanically or chemically irritating, or it may be infectious dust. Carbon and stone working, grinding, polishing, sorting of rags, file and comb making are processes which expose the worker to harmful dust. This exposure may result in an enervated condition of the eye, ear, nose, and throat, and in tuberculosis.

Second, variations in temperature. Work in iron and steel mills, glass factories, sugar-refining, bakeries, ice manufacturing, kilns for pottery, tempering and handling metals, canning and preserving, and stoking furnaces all involve either high heat or changes in temperature. These variations in temperature cause anæmia, general debility, rheumatism, premature old age, cataracts, and stiff joints.

¹ *Monthly Labor Review*, vol. XII, pp. 645-648.

Third, humidity. Some of the industries which expose the workers to dampness are pulp and paper mills, tanneries, some textile processes, canneries, sugar-refining, steam vulcanizing, dyeing, and cleaning. This humidity gives rise to diseases of the respiratory passages, neuralgia, and rheumatism.

Fourth, poisons. Many substances used in industry are poisonous. The danger of lead-poisoning affects those in the mining and smelting of the metal, those who make lead articles, and those who make colors for painting. The lead attacks the fingers and the eyes. Amyl acetate is used in lacquering, enamelling, and gilding. It causes palpitation of the heart. Wood alcohol is used in the preparation of varnish and lacquer, perfumes, celluloid-making, and the manufacture of patent leather. It causes inflammation of the throat and attacks the optic nerve. Phosphorus is handled by those who make bone-black, bone-ash, tar colors, some fireworks and matches. It causes ulceration of the gums, the loosening and falling out of the teeth, and the destruction of the jaw-bones. Besides these, other industrial poisons are ammonia, aniline oil, aniline dyestuffs, arsenic compounds, benzol, brass, carbon disulphide, carbon monoxide, chlorine, chlorine derivatives, hydrochloric acid, mercury compounds, nitrous gases, phenol, picric acid, sulphur dioxide, sulphuretted hydrogen, sulphuric acid, trinitrotoluol, and turpentine.

*Health Insurance in Europe.*¹—In Europe, social insurance of health has had wide development. Much diversity of practice and many problems have arisen which will need to be solved in the United States if we adopt health insurance.

¹ Cf. Commons and Andrews, *Principles of Labor Legislation*, pp. 417-422.

Workers Included.—In England, all manual laborers between the ages of sixteen and seventy, and all others whose earnings are less than \$1,250 a year, are forced to insure. In Germany, insurance is compulsory for all work people and for people with incomes less than 2,500 marks who are works officials, foremen, workers in stores, theatrical and musical performers, teachers and tutors. In France, the health insurance is voluntary for all except miners, seamen, and railroad workers.

Cost of Insurance.—Cost of insurance is usually divided between the employer and employee roughly in the proportion of two-thirds for the employer and one-third for the employee; sometimes the state makes a contribution, *e. g.*, in the case of England.

Method of Administration.—In almost all of the countries the administration is based upon previously existing local, industrial, or fraternal societies, but is subject to public control. The problem of providing doctors is somewhat difficult. Confidence in the doctor is an important part of successful treatment. In England, agreements are made between the doctors as a group and the local insurance committees, and then the patient is allowed to choose from the list the doctor he prefers.

Benefits.—The benefits include medical care and cash payments. Where the premiums vary with the amount of wages, the benefit is some proportion of the wages. In England, where the contributions are uniform, the benefit is a flat sum.

Under the English National Health Insurance there are provided:

(1) A medical benefit, consisting of free medical attendance and medicine.

(2) A weekly sickness benefit of 15 s. for men and 12 s. for women. The full amount is not given until the person has been a member for two years. The payment is made for 26 weeks if necessary.

(3) A maternity benefit of 40 s. in a lump sum.

(4) A disablement benefit of 7 s. 6 d. a week after the 26 weeks of sickness benefit has been exhausted.

The Leipzig local fund under the German system shows wide activities. It is run democratically by representatives elected, two-thirds by the workers and one-third by the employers. In some of the items, the Leipzig fund offers more benefits than the law requires. The benefits include:

(1) Free medical treatment including medicine, spectacles, trusses, and other appliances.

(2) If disabled, 55 per cent of the wages is given as a weekly payment for 34 weeks.

(3) Or, in place of the above, treatment is given in a hospital, clinic, or convalescent home, with payments to the relatives of a fraction of the sickness pay.

(4) A maternity benefit.

(5) A funeral benefit.

(6) Medical treatment and medicine for 13 weeks to uninsured members of the family and a funeral benefit for them.

The workers are grouped into ten wage classes, and 4 per cent of the average wages is collected from each of the classes. The workers pay two-thirds and the employers one-third of this amount.

The fund controls convalescent homes, forest retreats, and rural resorts.

7. Old-Age and Invalidity Insurance.¹—This is a *double* hazard. (1) Will the person live to old age and will he need support, either because he is incapacitated or because he has not accumulated enough funds to live on? (2) Will the person become incapacitated irrespective of his age? Probably the number who are invalided would be found to be fairly uniform. The amount of accumulation seems to be less susceptible to prediction.

In agricultural sections the problem of old age is less serious. The providing of food and house room have not been difficult problems in the country, and often the old person can still perform some services. In the cities among the poorer people the care of the aged is a more serious matter.

The moral hazard, if it exists at all, is the danger that provision for old age will discourage thrift.

Pension systems have developed in some industries and some governmental employments. Often there are compulsory payments required of firemen, policemen, and school-teachers. Private saving is the method used by better-paid workers to meet old age, but this obviously has its limitations when applied to the lower-paid groups. Charity is called upon to meet many of the cases.

Old-Age Pensions in England.—Old-age pensions in England may be taken as typical of one method of meeting the problem. Here the state bears the whole burden from funds raised by taxation. The person must be over seventy years old, a British subject for twenty years who has resided in the United Kingdom for twelve out of the last twenty years. The person's income must not exceed £49 17 s. 6 d. The amount paid varies from 10 s. a week to

¹ Commons and Andrews, *Principles of Labor Legislation*, pp. 429-438.

those whose incomes are not over £26 5 s. to 1 s. for those whose incomes are between £47 5 s. 0 d. and £49 17 s. 6 d.

On March 31, 1920, there were 957,915 persons receiving pensions.

The German System.—The German system is a contributory system; the worker and the employer each make contributions during the active period of the worker's life. These must be invested until the time for payments arise, then the state adds a yearly contribution. The benefit is paid when the employee reaches the age of sixty-five, or when he is incapacitated for work. The greater part of the payments are to the incapacitated.

8. Unemployment Insurance.¹—The question of insurable risk is bound up with the problem of business cycles. Certainly there is no insurable risk unless we consider long enough times to cover periods both of prosperity and of depression. Certain occupations are seasonal, such as the building trades, canning, and some types of farming. In industries like these, should we compensate for the regular periods of idleness or merely for idleness which is greater than the normal?

The moral hazard is voluntary idleness. To some men, half or two-thirds pay for idleness would appear more desirable than full pay for work. The system must provide some means for determining whether or not work is really lacking.

The Ghent System.—The Ghent system is of limited application. The city of Ghent, Belgium, in 1901 agreed to supplement the out-of-work benefits paid by the trade-unions. The city felt that if the trade-unions were paying

¹ Cf. Commons and Andrews, *Principles of Labor Legislation*, pp. 442-448.

benefits, probably there was no doubt about the inability to find work. The limitations are obvious. The system applies only to members of trade-unions, and it is non-contributory and really a form of charity. The system, however, has been rather widely accepted in other cities in Belgium, Great Britain, Germany, France, Switzerland, Italy, Holland, Denmark, Norway, and Finland.

The city of St. Gall, Switzerland, in 1894, tried the experiment of compulsory unemployment insurance. Many administrative difficulties were encountered; so, after two years, the plan was dropped. The system dealt directly with the workers, and it was found difficult to collect the weekly payments from them. There was no adequate means for determining the fact of unemployment. The system had been started without knowledge of unemployment, and so the rates charged were inadequate.

Out-of-Work Benefits of Labor-Unions.—Such benefits are common in Europe, but are not much used in the United States. The Cigar Makers' Union is the only member of the American Federation of Labor which has a national system. Other unions, however, have systems of narrower scope.

The British System.—The St. Gall policy of direct compulsion has had its latest and broadest application in the British Unemployment Law, which went into operation in 1912. It is compulsory, but is applied at first only to certain industries where records have been kept and thus where the extent of unemployment is known. Contributions are made by the worker, the employer, and the government. The benefit started at 7 s. a week; during the war it was raised to 15 s. a week.

An amended act came into operation November 8, 1920.

It added about 8,000,000 people to the scheme, bringing the total up to 12,000,000. Those in agriculture and domestic service are not included. Non-manual workers who get less than £250 are included. The insurance is paid from contributions by the workers, the employer, and the state. Thus, in the case of men, each week the employee pays 4 d., the employer 4 d., and the state 2 d. The unemployment benefit may be received for only fifteen weeks in any one year. Elaborate provisions are made to make sure that the man is really unable to find work. But the man is not required to become a scab, or accept employment at less than the ordinary rate of wages, or where conditions of work are less favorable than he has been accustomed to. On the other hand, he cannot get the payment if his unemployment is due to a strike. Thus, the state attempts to take a neutral attitude in strikes. It will not pay unemployment benefits to the strikers, nor will it force the unemployed to take the places left vacant by the strikers. Of course, a man who loses his job because of misconduct, or leaves his job voluntarily without any just cause, cannot collect the unemployment benefit.

The amount of benefit was increased to 20 s. for men, starting March 3, 1921; but the amount of unemployment was so great that on July 1, 1921, it was cut to 15 s. The fund was in debt at that time.

9. Exercises.—1. Why not have the government, out of funds raised by taxation, compensate for all of the hazards covered by social insurance?

2. What were the common-law defenses used by the employer?

3. From the standpoint of maximum production of wealth, who should bear the losses due to accidents in industry?

4. Is there any better method of apportioning the cost of accidents than the attempt to find some one person who was to blame for the accident and make him pay for it?

5. What defects appeared in practice in the employers' liability laws?

6. Why is the moral hazard slight in accident insurance?

7. Should working men's compensation laws be compulsory or elective?

8. Should diseases arising out of employment be classed as accidents?

9. Should disfigurement without loss of earning power be compensated?

10. Why are establishments employing only a few laborers often excluded from the provisions of working men's compensation laws?

11. Who ultimately pays the cost of working men's compensation?

12. Why is the compensation always less than the wages?

13. Discuss the advantages and disadvantages of having the compensation provided:

(a) by the employer himself;

(b) by insurance in private insurance companies;

(c) by insurance in compulsory state funds;

(d) by insurance in voluntary state funds.

14. How many men per thousand employed should an industry be allowed to kill each year?

15. How can we balance cheapening of the process with shortening of the life of the workers?

16. Can industry be made perfectly safe?

17. Why not insure every one against accidents whether they take place in industry or not?

18. How do epidemics affect the insurable risk in health insurance?

19. How would allowance be made for the differences in the healthfulness of localities?

20. Should allowance be made for differences in the health of the insured at the time the insurance was taken out?

21. Should we have compulsory health insurance for the whole population? for the poorer part of the population? If so, where would you draw the line?

22. Why should the employer or the state pay any part of the cost of health insurance?

23. What difficulty arises in connection with the choice of the doctor under health insurance?

24. Can we predict the percentage of people who will be invalids in old age?

25. Can we predict the percentage of people who will not be self-supporting in old age?

26. How does a state old-age pension differ from charity?

27. Which system for providing for old age is better, the English or the German? Why?

28. Which would be better, unemployment insurance or regularization of industry?

29. Could there be a period of depression in industry, if all of the workers out of employment were getting unemployment benefits?

30. Who ultimately pays the cost of unemployment insurance?

31. Explain the Ghent system of unemployment benefits.

32. What are the limitations of out-of-work benefits of trade-unions?

33. Why not pay out-of-work benefits to strikers?

34. Discuss the proposal to have governments carry on public works in time of depression in order to give work to the unemployed.

CHAPTER XI

TRANSPORTATION

1. The Place of Transportation in Economic Organization. 2. Stages of Development of Internal Transportation in the United States—Waterways—Roads—Canals—Railroads. 3. The Development of the Technic of Railroad Transportation—Locomotive—Rail—Cars—Safety Devices. 4. The Development of the Railroad Net in the United States—The Romance of the Railroad—The Darker Side—The New York Central—The Pennsylvania—The Baltimore and Ohio—The Union Pacific—Central Pacific. 5. Railroad Competition. 6. Railroad Rate Theories—Cost of Service—Distance—Value of Service—What the Traffic Will Bear. 7. Classification of Freight. 8. Railroad Freight Tariffs—The Bill of Lading. 9. Passenger Service and Rates. 10. Present Inland Water Transportation. 11. Early Merchant Marine and the Reasons for Its Decay. 12. Coastwise Shipping. 13. The War and Shipping. 14. The Panama Canal. 15. Exercises.

1. The Place of Transportation in Economic Organization.—Transportation fits into the scheme of economic organization as the device by which the desirabilities of goods are increased by changing the place where the goods are located. Cheap transportation makes possible geographical division of labor, illustrated in the United States by the production of cotton in the South, grain in the Middle West, manufactures in the East, and fruit on the Pacific coast. The importance of transportation is shown by a comparison of the conditions in the Ohio Valley before and after the development of communication with the Atlantic coast. Before easy communication was established, the people in the Ohio Valley had plenty to eat but all other phases of their existence were extremely crude. There was no use to produce more than could be consumed locally, for there was no market for the product. When

easy communication was established, the Ohio Valley grew rapidly in wealth and comfort. The products of the fertile lands could be exchanged for manufactures and other things desired.

Again, the importance of transportation is shown by the complaint of the farmers of the Middle West in 1921, that it was possible for a farmer in Argentina to put his grain in New York at a lower cost for the water haul than the farmer would have to pay on the railroads.

Strikes and threatened strikes of railroad workers have impressed on the people who live in cities how utterly dependent they are, particularly for their food, on the smooth working of the transportation system. Even within a city, great discomfort may be caused if a heavy snow-storm hampers the operation of the ordinary means of transportation.

The carrying of persons and mail is absolutely essential to the conduct of modern large-scale business. Also, people travel for pleasure. In the latter case, the railroad is supplying a direct want.

2. Stages of Development of Internal Transportation in United States.—So far as internal transportation is concerned, we may recognize certain stages: (1) Natural waterways and trails. (2) Roads and turnpikes. (3) Canals. (4) Railroads.

Natural Waterways and Trails.—The Indians had developed a technic of transportation which implied the use of such light canoes as could be carried around obstructions in the rivers and over the spaces between rivers or lakes. The Indians also had trails which led over mountains by the lowest passes and in general connected the water transportation system. The colonists followed and devel-

oped these trails. On the trails, goods were carried on pack-horses and the travellers rode horseback.

Roads and Turnpikes.—The development of roads made possible the use of carts and wagons for the transportation of goods and stage-coaches for the transportation of passengers. The difficulties of road-building were increased by the wooded nature of a large part of the country. Because of the poverty of the governmental bodies, many of the improvements were made by private companies, who built turnpikes, as they were called, and reimbursed themselves by charging toll. A fairly comprehensive system of stage-coaches developed. It was possible by this means to go from Boston to New Orleans. In general, the roads grew poorer as one went West or South.

Canals and Canalized Rivers.—From the standpoint of power used, the canal in level country is an extremely efficient means for hauling freight. A team of mules can haul much more on a canal than they can on the best road. The speed is not great. There are, however, certain difficulties in the construction and operation of canals. To go up or down hill, locks are used. A lock has gates at both ends. If a boat is to be raised to a higher level, it goes into the lock, the lower gates are closed, and water is allowed to come in and raise the boat to the higher level. If a boat is to be lowered, it goes into the lock; at the high level the gates are closed behind it and the water is discharged until the boat reaches the lower level. The process is slow and expensive, so it is not feasible to build canals where there is much elevation to be overcome. Another difficulty has to do with the supply of water. There must be ample supply of water at the summit level. In many cases this difficulty is insurmountable. Perhaps the most

serious objection to canals in our country is that in the North they freeze in winter and so must remain idle for a considerable part of the year.

3. The Development of the Technic of Railroad Transportation.—A brief sketch of some of the main points in this development will help us understand better the economic problems of transportation.

The Early Development of the Locomotive.—Many men worked on the problem of the application of steam to locomotion. One of the difficulties was how to generate steam rapidly enough. An early French engine with a boiler built on the teakettle principle would run for a few minutes and then be forced to stop to get up steam. This difficulty was overcome by using the multitubular boiler, which gives an extremely large heating surface. The use of the exhaust to furnish a forced draft helped in the use of the multitubular boiler. We may take 1829 as the date when the locomotive was perfected. In this year Stephenson's Rocket made a little over 29 miles an hour.

The Contrast between Europe and the United States.—In Europe the railroads were usually built between places where there was already in existence the traffic to be carried. In the United States, most of the roads were built ahead of the traffic. In Europe, the lines were usually carefully planned to eliminate curves and grades. The assured traffic made it profitable to build permanently. In the United States, the roads were often built with many curves and grades because the aim was to put the road through as cheaply as possible.

Development of the Rail.—One of the discoveries which seems most obvious to us now was that a smooth-wheeled engine could pull a train on a smooth track. Many of the

early experiments depended for traction upon cog-wheels or the like, such as some railroads which go up mountains now use. Iron and steel were expensive. So, some of the early roads ran on wooden beams with thin strips of iron nailed on the top for a wearing surface. The constant passage of trains would cause the strips to turn up at the ends. When a strip got high enough for the wheel to get under it, then it would come up through the floor of the car and make what the passengers called a "snake head." Some rails were cast in short sections and set in iron sockets. With the development in England of the puddling process and the rolling process, the iron rail became the most generally used rail, first in the shape of an inverted U and finally the present form of an inverted T. The next big advance came with the introduction of the Bessemer process of making steel. This process made steel cheap enough to be used for rails. Still later, the open-hearth process made a better grade of steel for rails. As the equipment increased in weight there has been a corresponding increase in weight of the rail; so, on the roads of heaviest traffic the rails weigh 130 pounds to the yard.

The Engine.—The engine has grown steadily in weight, speed, and carrying capacity. For a long time the passenger-engine had an arrangement of wheels ooOO. The large wheels were drivers. Increased speed was obtained by increasing the diameter of the drivers. Increased steaming capacity has been provided by bigger fire-boxes, longer boiler-tubes, higher pressure, superheaters, and fire-brick arches. With the use of steel coaches, which make a much heavier train, the typical passenger locomotive has this arrangement of wheels ooOOOo. The freight-locomotives have increased still more in size. The largest ones

are the Mallet articulated compounds. The engines are extremely long, and there are joints which permit the engine to go around curves. They are called compound because they use the steam twice, once in high-pressure cylinders, and then in low-pressure cylinders. Many of the first locomotives used wood for fuel. For many years coal, mostly bituminous, has been the chief fuel. In the West, oil is used to some extent.

The electric locomotive is used in two classes of situations. *First*, in city terminals, especially where tunnels are used. Here safety and the absence of smoke are the principal reasons for using them. And *second*, in the mountains of the West where coal is scarce and water-power is abundant. Thus, a considerable section of the Chicago, Milwaukee and St. Paul has been electrified. In going down the mountains the motors act as dynamos and generate current to pull other trains up the mountains.

Passenger-Cars.—The first cars were patterned after the stage-coaches. Soon, the long car with the aisle in the middle developed. Numerous improvements have been made in the springs, the seats, the use of steel in place of wood. The oil-lamps have been replaced by compressed gas, and finally by electric light; the cars are heated by exhaust steam from the engine instead of by stoves. Vestibules make passage from car to car easy. Of the special cars developed, the sleeping-car is most important. It has made night travel feasible if not entirely comfortable. The chair-car, the parlor-car, the dining-car, the club-car, the observation-car have all done their part in making travel more luxurious.

Freight-Cars.—The early freight-cars were patterned after wagons. Soon the double-truck car was developed.

Then came the steady increase in size. The cars have become specialized. There are open-top cars for handling coal, iron ore, and other coarse, bulky products. These are usually arranged with hoppers so that the load can be dumped by gravity. Box cars are used for hauling grain and general merchandise. There are special cars for hauling stock. The development of the refrigerator-car has had great effect on industry. It has made possible the concentration of the packing industry and the development of fruit-raising regions far from the consuming regions. Tank-cars are used for various liquids, principally oil. Flat cars are used for machinery and lumber. Steel has been used more and more, so that now practically all cars have steel underframes and many cars are made entirely of steel.

In this country, we have developed the practice of handling, as far as possible, goods in bulk. This saves carrying the weight of a container. Also methods have been devised for quick loading and unloading. Cars of coal are dumped by machinery, just as a person might pour the water out of a cup.

Safety Devices.—Besides the increased safety which comes from more substantial tracks and stronger equipment, the principal inventions have been in the perfection of brakes and signal systems. The air-brake makes it possible for the engineer to control from the cab the brakes on all of the cars of a long train. The latest improvement utilizes electric control of the air. The automatic block system aims to prevent two trains from trying to occupy the same strip of track at the same time. The telegraph and later the telephone have been used in despatching trains. These safety devices are important also because they make pos-

sible greater speed and a fuller utilization of the facilities of the road.

4. Development of the Railroad Net in the United States.

—Perhaps the best way to get a general view is to take the number of miles of railroad at the various decades.

MILES OF LINE IN THE UNITED STATES

Year	Miles
1830.....	23
1840.....	2,818
1850.....	9,021
1860.....	30,626
1870.....	52,922
1880.....	93,267
1890.....	167,191
1900.....	198,964
1910.....	249,992
1918.....	253,529

Then, some significant dates may be given. The railroad reached Buffalo from New York in 1851; connection between Philadelphia and Pittsburgh was made in 1852; Buffalo and Chicago were connected in 1853. The road from Pittsburgh reached Chicago in 1856. The connection with the Pacific coast was made in 1869.

The railroad has been since about 1850 the dominant type of inland transportation in the United States. Before that time we had depended on natural waterways, roads, and canals.

Indirectly, the Erie Canal is responsible for the private ownership of the railroads in the United States. The Erie Canal was wonderfully successful. It developed a series of cities along its banks. It stimulated the growth of New York City. Now this success was due to the physical features: (1) the Mohawk Valley gave access to the West

with the lowest summit level; and (2) the Great Lakes provided a means for collecting traffic to be sent by the canal.

Other states, seeing the fortunate outcome of New York's experiment, wrongly concluded that all internal improvements, especially canals and railroads, which a state might undertake, would be profitable. So they entered into a vast programme of state development of transportation, at first canals, and later railroads. The money provided by the states was usually raised by selling bonds. In their optimism, the people supposed that the return from the enterprises would pay the interest on the bonds and repay the principal when it came due. Almost without exception, the enterprises were not successful. The financial burden upon the states caused by the failures resulted in many states putting in their constitution clauses saying that the state or any subdivision of the state should not invest in any industry. Long afterward, some of these clauses have kept cities from taking over the street-car systems.

The federal government, according to the strict construction of the United States Constitution then prevalent, had no power to engage in the development of transportation.

We may summarize by saying that at the time the railroads were coming in the federal government *could not* and the state governments (as a result of the disastrous ending of the projects induced by the success of the Erie Canal) *would not* provide the funds and take over the management of the railroads. Thus, private enterprises assumed the task. And so we may hold the Erie Canal responsible, to a considerable degree, for the outcome.

The Romance of the Railroads.—There has always been something of romance and adventure about the develop-

ment of railroads in the United States. To be a railroad man has been like running away to sea. Think of the magnificent faith involved in putting a railroad through unsettled country and picturing the farms and industries and cities that will spring up. What is more thrilling than the building of a railroad across the plains to California with Indians to fight and buffaloes to hunt? The bridging of streams, the tunnelling of mountains, and the like have given chance for adventurous achievement.

The Darker Side.—But the building of our railroads involved more than romance. The charters and public aid were often obtained by bribery more or less direct. Many innocent investors lost their money through sharp financial practices. Some roads were utilized for speculative purposes rather than for the development of transportation. The building of the roads was often made the basis of fraudulent deals with insiders at the expense of the stockholders. No one can be proud of that part of our railroad history which deals with the early development of the Erie Railroad and the scandals of the *Crédit Mobilier*, the construction company used in building the Union Pacific. In connection with the *Crédit Mobilier* a congressional committee once made a wonderful report which amounted to saying that the men interested in that company had been guilty of bribing congressmen, but that no congressman had been bribed.

The New York Central.—The New York Central is a type of railroad built up by consolidation. The Erie Canal had caused a growth of population in central New York. Many short lines were built between cities, starting in 1831 with a line between Albany and Schenectady. By 1845 it was possible to go from Albany to Buffalo using

eight different railroads not physically connected. In 1849 the tracks were connected. In 1853 twelve lines between Albany and Buffalo were consolidated as the New York Central Railroad. Vanderbilt got hold of the Harlem Railroad and the Hudson River Railroad, and in 1869 formed the New York Central and Hudson River Railroad. This gave the connection with New York City. West of Buffalo, the railroad was interested in various lines giving connections with Chicago, St. Louis, Louisville, Cincinnati, and other cities. In 1914 a consolidation took place with the Lake Shore and Michigan Southern under the name the New York Central Railroad.

The Pennsylvania Railroad.—This road grew out of the Pennsylvania State System. The success of the Erie Canal brought prosperity to New York City. Philadelphia wished to get a share in the profitable Western trade. The mountains to be crossed made the project more difficult than the building of the Erie Canal. The state of Pennsylvania built a railroad from Philadelphia to Columbia. A canal was built from Columbia to Hollidaysburg along the Susquehanna and Juniata Rivers. Then came the most interesting feature. The mountains were crossed by a combination of railroads on the level stretches and inclined planes on the slopes. By this means Johnstown was reached. From there to Pittsburgh a canal was used.

The Pennsylvania Railroad built a railroad over the mountain. Later it bought the Pennsylvania State System and utilized part of it.

The Baltimore and Ohio.—This road was Baltimore's bid for the Western trade. Construction started in 1828. It reached Wheeling in 1853 and Chicago in 1874.

The Union Pacific—Central Pacific.—California had grown in population and importance as the result of the discovery of gold in 1848. Connection with the East was made by the long journey by water around Cape Horn or by way of Panama or by the long journey overland across the plains. The Civil War emphasized the isolation of California and prompted the building of the railroad. The government gave land grants and financial aid.

5. Railroad Competition.—We may recognize three types of railroad competition. (1) Competition of routes. (2) Competition of facilities. (3) Competition of markets. Competition of routes is illustrated whenever there is more than one railroad between two given points. Thus, between Chicago and New York it is possible to go by one of several railroads, and the different railroads compete with each other for the traffic. In the days before the regulation of railroad rates this competition was a source of much discrimination.

Low rates were given in order to get the traffic away from competing railroads. Under the present rate system, the rates are usually the same irrespective of the route taken. So competition is now more frequently the form of competition of facilities. Ordinarily, students are probably more familiar with competition of facilities as it applies to passenger service. This may take the form of faster trains, finer equipment, or better meals. Then, the competition of markets is extremely interesting. Take, for example, the case of oranges in the United States; the two sources of supply are California and Florida. We may then say that the competition which the Pacific railroads meet in the freight rate on oranges comes from the fact that the oranges from California, in order to be marketed, must

be put into certain cities in the East and Middle West at a price which will enable them to compete with oranges which are brought from Florida.

6. Railroad Rate Theories.—*Cost of Service.*—The cost of the service seems at first sight to be a reasonable basis for railroad rates. The chief difficulty in applying it arises from the fact that most costs on the railroad are joint costs. The same tracks are used for passengers and freight. The same engine and crew may be carrying a thousand different shipments. It is possible to figure certain direct costs if a train-load is shipped; *e. g.*, train crew, coal, something for the use of the engine and cars. However, it is nearly impossible to figure the cost of the track, the terminals, and the general officers. If we are dealing with a single package in a car, the problem is still more complicated. This much may be conceded, that the added cost of carrying a shipment sets the lower limit for the rate.

Distance Theories.—At bottom, these theories are based on the idea of cost. There are three forms: (a) The straight distance theory, that the rate should vary directly with the distance. This neglects the heavy terminal expense. (b) The tapering distance theory, in which the rate increases with the distance but less rapidly. A uniform terminal charge and a proportionate mileage charge give this effect. (c) The zone system, in which the rates are the same over considerable areas. This equalizes competitive conditions within the zone.

The Value of the Service.—This may be measured by the difference in the value of the commodity at the two places. This is too one-sided to do for a full basis of rates, but it sets the upper limit to what the railroad can charge.

What the Traffic Will Bear.—This phrase is often used to characterize the price policy of the monopolist. But in the case of the railroad, it is used primarily as a justification for low rates. The idea is to develop traffic. Each shipment must cover the added outlay it causes and contribute something to general expenses. If the commodity is cheap and bulky, it cannot be expected to contribute much per ton, but in the aggregate the amount contributed may be considerable. This is the theory actually followed by most railroad men in the United States.

Most regulating commissions attempt to apply a cost of service or a distance theory.

7. Classification of Freight.—When we consider the numerous articles which may be shipped by freight and the great number of places which may be the origin or destination of the shipment, we see how impossible it would be to have documents which quote the rates on each separate article from each separate place to every other place. In order to simplify the matter, the railroad companies have grouped articles shipped into classes. In order to find the rate charged on any article then, one first consults the classification.

Some of the factors which enter into the determination of the classification of an article are given in a decision of the Interstate Commerce Commission, quoted by Ripley.¹

“Whether commodities were crude, rough, or finished; liquid or dry; knocked down or set up; loose or in bulk; nested or in boxes, or otherwise packed; if vegetables, whether green or dry, desiccated or evaporated; the market value and shippers’ representations as to their character; the cost of service, length and direction of haul; the

¹ Railway Rates and Regulation, pp. 314-315.

season and manner of shipment; the space occupied and weight; whether in car-load or less-than-car-load lots; the volume of annual shipments to be calculated on; the sort of car required, whether flat, gondola, box, tank, or special; whether ice or heat must be furnished; the speed of trains necessary for perishable or otherwise rush goods; the risk of handling, either to the goods themselves or other property; the weights, actual and estimated; the carrier's risk or owner's release from damage or loss."

On page 187 is given a section of a classification.

The section is from Official Classification No. 42, effective July 1, 1914. L. C. L. means less than car-loads. C. L. means car-loads. The Official Classification holds for the territory north of the Ohio and Potomac Rivers and east of the Mississippi River. The Southern Classification holds for the territory south of the Ohio and Potomac Rivers and east of the Mississippi River. West of the Mississippi River, the Western Classification is used. This division of territory is only approximate. The question suggests itself: Why have more than one classification? The necessity arises from the fact that the different sections of the country have specialized in production. In a producing section rates will be low because the article moves in comparatively large quantities and the railroads wish to promote production by low rates. In other sections of the country where the article is used in smaller quantities and in the form of a finished product, the railroads can and will charge higher rates. In the classifications, the lower numbers represent the higher rates. So, in the producing section, the article will be put in the higher-numbered class, and, in the consuming section, it will be put in the lower-numbered class. Much has been done toward making the

M	Subject to Uniform Bill of Lading Conditions	
	L. C. L.	C. L.
1Mica:		
Sheet, in barrels or boxes	1	....
Scrap, see Note:		
In bags	3	....
In barrels or boxes	4	....
In packages or in bulk, C. L., min. wt. 30,000 lbs . . . . .	....	5
Note.—Ratings on Scrap Mica apply on Mica which has value for grinding or pulverizing only.		
Ground or Pulverized:		
In bags	3	....
In barrels or boxes	4	....
In packages named, C. L., min. wt. 30,000 lbs. . . . .	....	5
2Middlings:		
In sacks or bbls	5	....
Min. wt. 35,000 lbs . . . . .	....	6
3MILK:		
4 Milk, Condensed or Evaporated (liquid):		
In milk shipping cans, <i>subject to rates and regulations of individual carriers.</i>		
In glass or earthenware, packed in barrels or boxes	1	....
In metal cans completely jacketed in metal or wooden jackets	2	....
In metal cans in crates	3	....
In metal cans in barrels or boxes	3	....
In bulk in barrels	3	....
In glass or earthenware, packed in barrels or boxes, in metal cans completely jack- eted in metal or wooden jackets, in metal cans in barrels, boxes or crates, or in bulk in barrels, C. L., min. wt. 36,000 lbs. . . . .	....	4
5 Milk Food, other than Malted Milk:		
In glass or earthenware, packed in barrels or boxes	1	....
In fibre or metal cans in boxes	2	....
In packages named, C. L., min. wt. 30,000 lbs . . . . .	....	3
6 Milk, Malted:		
In glass or earthenware, packed in barrels or boxes	1	....
In fibre or metal cans in boxes	2	....
In bulk in barrels	2	....
In packages named, C. L., min. wt. 30,000 lbs . . . . .	....	3

rules uniform, and the three classifications are now available in one book. But in such a large country with such diverse interests, entire uniformity is not to be expected.

It will be noted that the classification varies with the way in which the articles are packed and the volume of the shipments. The minimum weight which will be taken at the car-load rate is subject to many disputes. The railroads wish it to be as high as possible to promote heavier loading of cars; the shippers want it as low as possible to enable them to get the low car-load classification on small shipments.

We will suppose that we wish to ship two sacks of middlings, each weighing 100 pounds, from Cumberland, Maryland, to Columbia, Pennsylvania. The middlings in that form will go fifth class.

8. Railroad Freight Tariffs.—When one has found the classification of the article he desires to ship, the next thing is to find the rate charge for that class from the point of shipment to the destination. The book which has this information in it is called a freight tariff. In general, there are two kinds of freight rates: those called commodity rates and those called class rates. The commodity rates are quoted on articles which move in large quantities, usually by car-load lots, and so ordinarily apply only to car-loads. The class rates include all of the articles shipped. That is, if an article which ordinarily has a commodity rate is shipped in less-than-car-load lots, the class rates would apply.

The fundamental idea of a railroad is to charge a certain rate, usually the highest rate which will enable the article to move in profitable volume. It is obvious that this rate may be affected by the classification or the tariff.

Local rates are rates for traffic which does not go beyond a single railroad. *Through* rates are rates which are charged when the traffic moves over more than one railroad. A certain amount of grouping of rates is found, usually induced by competition of various jobbing or manufacturing centres. Thus, the rates to the South from the Middle West are made by charging a certain amount to any one of a number of Ohio River crossings and adding a local from the Ohio River crossing to a point in the South.

To return to our problem, a section of a local tariff on the Pennsylvania Railroad before the war is given below:

TO STATIONS		FROM STATIONS NUMBERS	RATES IN CENTS PER 100 POUNDS					
Nos.	NAMES		CLASSES					
			1	2	3	4	5	6
1410	Mountville, Penna.	1981 to 1989 inc...	36	31	24	18	15	12
		2001 to 2005 " ..	37	32	25	18	15	12
		2015	38	32	26	18	15	12
		2036 to 2037 inc...	39	33	28	19	16	13
		2053	42	35	29	21	18	15
		2057 to 2076 inc...	43	37	30	21	18	15
		2082	44	38	30	21	18	15
		2146 to 2192 inc...	38	32	27	18	15	12
1415	Columbia, " "	1981	35	30	23	17	14	12
		1983 to 1989 inc...	36	31	24	18	15	12
		2001 to 2005 " ..	37	32	25	18	15	12
		2015	38	32	26	18	15	12
		2036 to 2037 inc...	39	33	26	19	16	13
		2053 to 2062 " ..	42	35	29	21	18	15
		2072 to 2082 " ..	43	37	30	21	18	15
		2146 to 2192 " ..	38	32	27	18	15	12

Freight tariffs vary greatly in form and arrangement. However, they all give information about the rates charged on certain classes or commodities between different places. In this particular one, we look up Cumberland, Maryland, in the index of origins and find that its number is 2192. Then we find Columbia, Pennsylvania, in the list of des-

tinations. Here the fifth-class rate for 2192 or Cumberland, is shown to be 15¢. So our shipment would cost 30¢.

The details of the way the shipment is looked after do not interest us. But we are interested in the bill of lading. This paper is given to the shipper by the railroad when he has delivered the goods to the railroad. It serves as a receipt for the goods and also the contract according to which the goods are transported. Our interest in the bill of lading arises from its use as collateral security for bank loans. Frequently, in the shipment of staples such as cotton and grain, the seller draws a draft on the purchaser, attaches the bill of lading, and discounts the draft with his bank. The bank sends the papers to some bank in the city where the purchaser lives. This bank presents the draft for payment, and will not surrender the bill of lading until the purchaser accepts or pays the draft. As the purchaser cannot get the goods without the bill of lading, it is good collateral security.

A copy of a bill of lading is given on page 191.

9. Passenger Service and Rates.—Except in New England, the railroads receive in general much less revenue from the passenger service than from the freight service.

In European countries, the roads have developed numerous classes of service, with considerable variation in the equipment used. In part, this has come about as a result of the stratified condition of society. In this country, there has been less tendency to have different classes of service. However, certain of our arrangements give about the same effect. Thus, extra fares are charged on the fast trains, a surcharge is collected in addition to the Pullman fare from those who use sleeping-cars, and emigrants are carried at lower rates on slower trains with poorer equipment. Es-

pecially for travel to California, there are two kinds of Pullman cars, standard and tourist.

Passenger rates are usually on a mileage basis. The rate charged between two cities, served by more than one road, is set by the short line. If this were not so and a longer road attempted to charge a higher rate, it would not get any of the traffic. Excursion rates and commutation tickets illustrate cheap rates which result from carrying a large number of people at the same time.

10. Present Inland Water Transportation.—Water transportation within the United States has declined in importance with the development of the railroad. The biggest water-borne traffic is on the Great Lakes. Iron ore is shipped in large quantities from Minnesota, Wisconsin, and Michigan to the iron and steel producing regions of Illinois, Indiana, Ohio, and Pennsylvania. Coal from Ohio, West Virginia, and Pennsylvania is shipped to the northern lake ports. Considerable grain still moves from the West to the East by way of the lakes. In addition, there is a certain amount of miscellaneous freight carried.

The Erie Canal has been rebuilt by the State of New York, but the volume of traffic carried is not great. The traffic on the rivers is of more importance. Considerable coal is carried on the Ohio River. The Hudson River is used particularly for building material. The lower Mississippi is used for general freight, especially cotton.

11. Early Merchant Marine and the Reasons for Its Decay.—In the days of sailing-vessels, we possessed great advantages for ship-building. Good woods for hulls and masts and spars were found close to the coast. Our designers developed good types, especially the clipper. Our sailors were skilled and daring. As a result of this com-

bination of advantages, we ranked high as a shipping nation.

The decline in our merchant marine came after the Civil War. To some extent, it was due to the development of the iron and steel steamship. England had an advantage in building these. Our iron and steel industry had not then surpassed England's. The Confederate privateers during the war destroyed some of the shipping and more was transferred to foreign registry. The table below gives some of the figures showing the decline and the recovery during and after the war:

PERCENTAGES OF IMPORTS AND EXPORTS BY
WATER CARRIED IN AMERICAN VESSELS¹

1877.....	26.9	1917.....	18.6
1901.....	8.2	1918.....	21.9
1914.....	9.7	1919.....	36.4
1915.....	14.3	1920.....	43.0
1916.....	16.3		

12. Coastwise Shipping.—Since 1817, coastwise shipping has been reserved as a monopoly for American built and operated ships. The tonnage operated has been large; so, we have compared favorably with other nations in total tonnage owned even in the times when we had few ships engaged in foreign trade. General package freight has been carried from port to port. New England gets much of its coal by water carriers. Fruit and vegetables are brought from the South to the North on the coastwise vessels.

13. The War and Shipping.—The great war probably marks the beginning of a new epoch on our merchant marine. To meet Germany's submarine campaign, our gov-

¹Statistical Abstract of U. S., 1920, p. 382.

ernment entered into a great programme of ship-building and ship operation. The ships were built as rapidly as possible, regardless of cost. The building campaign was successful. It did its part in convincing Germany of the uselessness of continuing the struggle.

The sudden termination of the war left the government with many ships contracted for which were not completed. After a short period of prosperity, depression came and the demand for shipping fell off. The government organization for operating the ships was not very efficient.

The following table indicates the changes caused by the war, the enormous increase in the shipping engaged in foreign trade, and the slight decline in the coastwise tonnage:

TOTAL TONNAGE OF SHIPS ENGAGED IN TRADE
OF THE UNITED STATES¹

FOREIGN TRADE		
	Total	Steam
June 30, 1914.....	1,066,288	720,609
June 30, 1920.....	9,924,694	9,023,724
COASTWISE		
June 30, 1914.....	6,818,363	4,688,240
June 30, 1920.....	6,357,706	4,425,997

¹ Statistical Abstract of U. S., 1920, p. 368.

As the result of the war, we have displaced Germany as the second shipping nation of the world. We are not very far behind the United Kingdom. The following table shows how the war affected the tonnage of various countries:

STEAM TONNAGE (MERCHANT SHIPS OF 100 TONS AND OVER) OWNED BY THE PRINCIPAL MARITIME COUNTRIES IN JUNE, 1920, AS COMPARED WITH JUNE, 1914¹

Country	Gross Tonnage	Rank	Gross Tonnage	Rank
United Kingdom.....	18,110,653	1	18,892,089	1
United States (including Great Lakes).....	14,574,375	2	4,330,078	3
Japan.....	2,995,878	3	1,708,386	6
France.....	2,963,229	4	1,922,286	5
Italy.....	2,118,429	5	1,430,475	8
Norway.....	1,979,560	6	1,957,353	4
Holland.....	1,773,392	7	1,471,710	7
Sweden.....	996,423	8	1,015,364	10
Spain.....	937,280	9	883,926	11
Denmark.....	719,444	10	770,430	14
Russia.....	509,564	11	851,949	12
Greece.....	496,996	12	820,861	13
Brazil.....	475,224	13	307,607	16
Germany.....	419,438	14	5,134,720	2
Total for World.....	53,904,688		45,403,877	

¹ Federal Reserve *Bulletin*, Feb., 1921, pp. 184, 186.

14. The Panama Canal.—The World War came about the time the Canal was finished, so there has been no opportunity to see what effect the Canal will have on the trade

TRAFFIC THROUGH THE PANAMA CANAL²

Year Ending	Vessels	Tons of Cargo
June 30		
1915.....	1,072	4,926,145
1916.....	760	3,063,371
1917.....	1,806	7,083,045
1918.....	2,068	7,535,795
1919.....	2,028	6,923,423
1920.....	2,478	9,374,499
	10,212	38,906,278

² Statistical Abstract of U. S., 1920, p. 377.

routes of the world. It will make possible trade by water between the east and west coasts of the United States. It will shorten materially the distance from ports on the east coast of the United States to the west coast of South America.

15. Exercises.—1. Indicate in as many ways as possible the importance of transportation to New York City.

2. Discuss the influence of transportation on the location of factories and jobbing houses.

3. Describe the contributions of the American Indians to the development of transportation.

4. What is the objection to toll roads?

5. Give the advantages and disadvantages of canals.

6. Who benefits by the improvement of the Erie Canal?

7. Show how the conditions in the United States influenced the type of railroad-building.

8. Trace the development of the rail, the engine, and the cars.

9. Give some account of special freight equipment and the methods of handling freight at terminals.

10. Explain the block system for operating trains.

11. What is the importance of the air-brake?

12. Give several illustrations of competition of routes, facilities, and markets.

13. Why is railroad competition severe?

14. Explain historically why we have private ownership of railroads in the United States.

15. Why is freight classification necessary?

16. What determines the class in which a commodity will be placed?

17. Why is it difficult to get uniformity of classification in the different parts of the country?

18. What are commodity rates? Why are they granted?

19. What is the importance of the bill of lading from the standpoint of the banker?

20. What information is given in a freight tariff?

21. State the various rate theories, test each from the standpoint of the interest of the railroads and the interest of the general business public.

22. Outline the accounting problem in basing rates on cost. How would variations in volume of traffic affect cost?

23. Discuss railroad competition as it applies to passenger service.

24. How will the automobile, the motor-truck, the trolley-car, the auto-bus, and the aeroplane affect the earnings of the railroads?

25. Explain the basis for making commutation and excursion rates.

26. Why are not waterways developed by private enterprise?

27. What canals are at present much used?

28. When all costs, public and private, are considered, what sorts of water-carriage are efficient?

29. Why should coastwise shipping be reserved for American ships?

30. Compare the advantages and disadvantages for making and operating ships in the United States from 1790-1850 with those of the present day.

31. Why did the American merchant marine decline?

32. What is the advantage of having goods carried in American ships?

33. Recount briefly our experience with government operation of shipping during and after the war.

34. Is the Panama Canal a paying proposition?

35. What advantages to the trade of the United States will the Panama Canal bring?

CHAPTER XII

GOVERNMENT REGULATION OF RAILROADS

1. The Demand for Regulation—Ownership versus Regulation—The Alleged Advantages—Evils of Government Ownership. 2. The Scope of the Interstate Commerce Act. 3. Powers of the Interstate Commerce Commission. 4. Procedure. 5. The Regulation of Rates. 6. The Long and Short Haul Clause. 7. The Commodities Clause. 8. The Application of the Sherman Anti-Trust Law to Railroads. 9. Federal and State Regulation of Interstate Commerce. 10. State Railroad Commissions and Regulation. 11. The Railroads and the War. 12. The Esch-Cummins Law—The New Provisions About Rates. 13. Railroad Valuation—Earnings—Original Cost—Original Cost with Depreciation—Cost of Reproduction, New—Cost of Reproduction, Less Depreciation—Capitalization—Market Value of Stocks and Bonds—The Problem of Railroad Land. 14. Exercises.

1. The Demand for Regulation.—A study, in considerable detail, of the course of government regulation of railroads is worth while, because we have in it the longest experience of government regulation of any industry. The problems and difficulties which have arisen in the regulation of railroads will probably attend any effort of the government to extend regulation to other industries. But first we must consider the alternative to regulation.

*Ownership versus Regulation.*¹—All but a few people admit that transportation cannot be left entirely to private initiative. We have seen that our whole economic organization is dependent on efficient transportation. Competition between carriers needs to be controlled both for the sake of the carriers and the public. The carriers need protection because competition between railroads may be over-

¹ Cf. Johnson and Van Metre, *Principles of Railroad Transportation*, chap. XXXII.

severe. Since the railroads have such a large investment in fixed capital, slight variations in the volume of traffic may make a great difference in the net earnings. The fixed expenses go on, to a considerable extent, irrespective of traffic. From one point of view, the return from the added traffic would be mostly clear gain; so it would be worth fighting for. The interest of the public is that the transportation service shall be adequate at all times and that rates shall be reasonable and non-discriminatory.

Two methods may be employed to remedy the evils of unrestrained competition. The government may own and operate the railroads, or it may regulate them. The selection of the method should be on the basis of efficiency. The experience of other countries has only limited application to the United States. The area of the United States is so much greater and the mileage of railways so great (nearly one-half of the total in the world) that no country which has government ownership is really comparable. Again, matters of fundamental importance are the attitude of the people toward government enterprises and the degree of administrative efficiency by the government. These differ greatly from country to country.

The Alleged Advantages.—The more enthusiastic advocates argue that government ownership will enable us to keep all the advantages of our present system and eliminate all of its evils.

(1) They argue that the capital charge will be lessened, as watered stock will be eliminated and bonds on the credit of the government could be marketed at a much lower rate of interest. The assumption frequently was made that enough bonds could be sold at 2 to 3 per cent to buy all of the railroads. The experience of our government in

selling bonds during the war showed the error in this assumption. The amount of the war issues was only slightly more than the amount necessary to buy the railroads, yet the last issue, sold on a patriotic rather than a market basis, needed an interest rate of $4\frac{3}{4}$ per cent. Some saving undoubtedly could be made, but it would be much less than sometimes claimed. Especially, if the government should now attempt to add this great amount to its indebtedness.

(2) The advocates of government ownership claim that all discrimination would be eliminated. Certainly, the discriminations which arise from competition would be eliminated. Those which are personal would, of course, still persist. Another type of discrimination might be fostered; an "agricultural bloc" might force through Congress laws directing the government-owned railroad to charge extremely low rates on agricultural products.

(3) Lower rates are held out as an inducement to have the government own the railroads. Here, it is necessary to make sure that the lower rates are not the result of shifting part of the costs to the public in the form of taxes or of failure to provide adequate depreciation. Lower rates which do not result from increased efficiency are not desired. The question of efficiency is the whole point at issue.

Evils of Government Ownership.—(1) Political action in location of railroads might lead to much needless expenditure. Our experience with rivers and harbors and public buildings is a national scandal. A railroad improvement bill of the same sort would mean uneconomic and wasteful building.

(2) Many fear that government ownership would deaden the incentive for improvements. They think that the mar-

vellous technical advances which we have made are the result of the individual initiative which has been fostered by private ownership. They ask what incentive there would be for the manager to be efficient or to introduce improvements.

(3) The labor problem would be serious. If we argue from the experience of the postal employees, we would say that the labor would not be overpaid. But one important element has been left out of that argument. The postal employees have never had strong unions. The better analogy is with what happened during the war. Some allowance must be made for the war emergency, but certainly the labor-unions were very successful in getting what they wanted in the way of increased wages and, what was really more important, national agreements about working rules and conditions. The discipline was weakened. The men felt that their advancement depended on union action rather than on the way they performed their work.

With this brief survey of the leading arguments regarding government ownership, we turn to the development of regulation in the United States. The two reports to Congress of investigations concerning transportation conditions shortly before the Act of 1887 are the Windom Report of 1874 and the Cullom Report, 1886. In the Windom Report, the burden of complaint was that rates were too high. The committee suggested competition to bring down rates. The government was to assist in the development of various waterways and to build a low-grade freight railroad from the Mississippi River to the Atlantic coast. By the time of the Cullom Report, the complaint had changed. The protest was against discriminations between places and persons.

2. **The Scope of the Interstate Commerce Act.**—Congress has steadily widened the scope of the Act. The Act of 1887 provided that railroads include bridges and ferries and that transportation include all instrumentalities of shipment or carriage. The Act applies to all common carriers transporting passengers or property wholly by rail or by rail and water, and to all continuous carriage from one state to another or to a foreign country. The Act of 1906 extended the application to sleeping-car companies, express companies, and pipe lines. The Act of 1910 made interstate telegraph, telephone, and cable companies subject to the Act.

3. **Powers of the Interstate Commerce Commission.**—The Act of 1887 gave the Interstate Commerce Commission power to inquire into the management of the business of all carriers subject to the Act, to require testimony and attendance of witnesses, to require annual reports, to prescribe uniform accounting, and to administer oaths. In 1897, the supreme court denied the power of the Interstate Commerce Commission to set maximum rates. After a long period, in 1906, Congress gave them the right to fix, after investigation, a maximum rate to be observed in the future. They also could require connecting lines to through routes with joint rates. In 1910, the powers of the Interstate Commerce Commission were again extended by permitting them to establish through rail routes or rail and water routes, even though a satisfactory through route might exist; by giving them full power to initiate proceedings and by giving them power to issue orders regarding any conditions or practices regarded as unjust or discriminatory. The power over classification was subsequently given. In the Panama Canal Act of 1912, it was provided

that railroads should not own or have an interest in water carriers with which they might compete for traffic. The Interstate Commerce Commission has a final decision as to the facts where competition may exist. Except the water lines through the Canal, the Interstate Commerce Commission may allow ownership if its continuance would not prevent or reduce competition. The Interstate Commerce Commission may order a railroad, if it makes through arrangements with one water line to foreign countries at a port, to make the same with other water lines. In 1913, Congress ordered the Interstate Commerce Commission to make a valuation of the railroads and to keep it up to date.

4. Procedure.—When the original Interstate Commerce Act was before Congress, a difference of opinion arose as to how the Act should be enforced. One group favored leaving the enforcement entirely to the courts. The other group, which finally prevailed, favored having a commission. So, the Act of 1887 provided that the Interstate Commerce Commission should hold hearings and make its decision. If the decision was not obeyed the commission applied to the circuit court for an injunction to compel the railroad to obey. In 1889, in the *Kentucky and Indiana Bridge* case (37 Fed. Rep., 567), the court allowed the introduction of new evidence. This was a blow to the prestige of the commission, for it meant that the hearing before it would be merely a preliminary one and that the real case would be before the court.

Congress, in 1889, gave the commission more power. It could require witnesses or documentary evidence from any place in the United States and could itself sign the subpoenas to require the attendance of witnesses. Again, in 1891, Congress strengthened the authority of the commis-

sion by giving it the power to secure testimony by deposition and by providing that district attorneys must prosecute cases on request of the commission.

At first the courts seemed to hamper the commission wherever possible. Later they acted more favorably. In 1892, in the case *Counselman v. Hitchcock* (142 U. S., 547), the supreme court held that the clause in the law of 1889, providing that a witness should not be excused from testifying upon the claim that such testimony might tend to incriminate him, was unconstitutional. Thereupon, in 1893, Congress gave absolute immunity for such testimony as might incriminate the witness and made the penalty for refusing to testify the same as for other violations. This act was upheld by the supreme court in 1894 in the *Brimson* case (154 U. S., 447), which held that it was constitutional for Congress to grant to an administrative body the power to compel the attendance and testimony of witnesses; and, in 1896, in the case *Brown v. Walker* (161 U. S., 591), which held that it did not violate the constitutional right of the witness to compel him to give testimony.

Many of the cases brought by the commission dragged on for many years by reason of the appeals and the crowded condition of the dockets of the courts. To improve this situation Congress passed, in 1903, the Expediting Act. The Act provided that in equity suits in the circuit courts where the United States is the complainant under the Interstate Commerce or Anti-Trust Acts, and where the attorney-general certifies that they are of public importance, the suits shall be given preference, and an early hearing by three judges. Appeals are to be made direct to the supreme court, and made within sixty days.

The Elkins Act of 1903 was concerned largely with re-

bates, and provided that the circuit court sitting in equity should enforce tariffs and prohibit discriminations. In the Hepburn Act of 1906, the courts were given additional powers of mandamus to enforce the orders of the Interstate Commerce Commission. Appeals were to be direct to the supreme court with a privileged place on the docket. The attorney-general of the United States was to fight the appeals.

In the *Illinois Central* case (215 U. S., 452), the supreme court laid down the principles which should guide it in considering the acts of the Interstate Commerce Commission. The court questions only the constitutional right or power, and whether the administrative authority is within the scope of the delegated authority under which it purports to have been made. It will not set aside orders merely on the court's conception of whether the power has been wisely exercised.

The Mann-Elkins laws of 1910 provided for a special commerce court of five judges which was to have exclusive jurisdiction in appeals from the decisions of the Interstate Commerce Commission. The law provided for easy appeal to the supreme court. It was thought that a special court would have the advantage of quickness, and that the judges would become specialists in transportation cases. However, the commerce court seemed to consider themselves judges not so much of the law and procedure as the supreme court held in the *Illinois Central* case, but of the wisdom of the orders. The commerce court was abolished in 1913 and its duties assigned to the district courts.

5. The Regulation of Rates.—Many practices of the railroads led to discrimination between shippers. Rebates were the most flagrant discriminations. The attitude of

the public toward rebates shows how our business standards develop. The rebate is a refund of part of the amount paid for transportation, or the transportation may be paid for in the first instance at a lower rate than others are paying. The rebates were of two kinds. First, those which were the result of personal favoritism. Very soon, resentment arose over this type of rebate. There was a feeling that the railroad, though privately owned, should treat all shippers in the same manner. A second type of rebate was one given to the shipper who shipped in large quantities. For a long time most people approved of this type of rebate. They argued that it was exactly analogous to the principle that wholesale prices are lower than retail. The shift of the public to the view that such rebates should not be allowed came as the result of observation of the effects of such advantages in transportation rates. Transportation is such an important element in business, that the firm that paid lower rates could drive out its competitors. Now the law in effect says that any one who can ship a car-load shall have as low a rate as any one else.

Other forms of discrimination have at times been used. Shipments have been underbilled; that is, charged for less than the actual weight or less than the proper rate collected. Privately owned coal, oil, refrigerator, and other kinds of cars have sometimes been used to discriminate against the shipper who does not own any equipment. The railroad may allow an excessive amount for the use of the cars.

Some concerns got the equivalent of rebates by incorporating a railroad company to operate the switching tracks at their plants. These switching roads would then get a division of the rate on in- and out-bound shipments.

Short-time tariffs were occasionally used. A tariff would be filed giving a low rate for a short time. Only the favored shipper would know of it and be able to take advantage of it. By the time his competitors were ready to ship under the favorable rate, it would be withdrawn.

One shipper might be allowed time to pay his freight bills and the others be required to pay cash. This would amount to giving him a lower rate.

Sometimes the rebate was covered up by another transaction. The railroad might buy something from the concern and pay more than the market price for it.

Excessive allowance for claims was an easy way to conceal the rebate.

The Interstate Commerce Act of 1887 provided that there should be no discrimination in rates between persons, places, or commodities; that there should be no undue or unreasonable rates. The railroads must prepare and publish schedules of rates and keep them for public inspection and file copies with the Interstate Commerce Commission. Rates could not be raised without ten days' notice. Passes or reduced rates could be given to the destitute and those having them in charge, to employees and their families, and to ministers. The Act of 1889 required three days' notice for reducing rates, and provided that the form of the schedules should be prescribed by the Interstate Commerce Commission. In the early rate cases, when the Interstate Commerce Commission found a rate unreasonable, they specified the maximum rate which would be reasonable. This practice went unchanged for a time. Finally, in 1897, in the *Maximum Freight Rate* decision (167 U. S., 479), the supreme court decided that the Interstate Commerce Commission could not enforce the maximum rates on the

railroads. This was a great blow for freight regulation. For example, if the rate charged was \$1.20 per 100 pounds, and the Interstate Commerce Commission said that \$1.00 was the maximum reasonable rate, all it could do after this decision would be to say that the \$1.20 was unreasonable. So, it might take a great number of cases to bring down a rate to a really reasonable level. The Act of 1906 laid down more detailed regulations about filing, posting, and observing schedules, and required thirty days' notice for either an increase or a decrease of rates. The Act of 1910 allowed more people to get passes, and provided that classifications as well as rates must be reasonable. The burden of proof for the reasonableness of advances was put on the railroads. This provision was extremely important. The Interstate Commerce Commission had been acting successfully in removing discriminations which existed in rates, but had not been able to handle the matter of the general rate level so satisfactorily. When the burden of proof had been on the shippers, they found it almost impossible to convince the Interstate Commerce Commission that the general level of rates was too high. Now the shoe is on the other foot and the railroads find it almost impossible to convince the Interstate Commerce Commission that the general level of rates is too low.

6. The Long and Short Haul Clause.—One particular kind of discrimination between places which caused a great amount of complaint was the charge of more for a short than for a long haul. The Act of 1887 provided that railroads were forbidden to make a greater charge for a short than for a long haul on the same line under substantially similar circumstances and conditions. If, after investigation, the Interstate Commerce Commission found

that the discrimination was justifiable, it might give permission to the railroad to violate this clause. The first case which came before the Interstate Commerce Commission was the L. & N. case (1 I. C. C. R., 31). In this decision the Interstate Commerce Commission decided that the dissimilar circumstances which might justify the violation of the long and short haul clause were: *first*, water competition; *second*, competition of carriers not subject to the Act; and *third*, rare and peculiar cases. Of course, this last clause acted as an invitation for the railroads to appeal every case on the ground that it was a rare and peculiar case. In 1892, in a lower court, a case was decided (52 Fed. Rep., 912), which held that the joint line formed by two roads is wholly independent of the two lines represented by the several roads taken separately and apart. This decision was overruled by the supreme court in 1896 in the Social Circle case (162 U. S., 184). The supreme court held that when a continuous line for through traffic is formed by several roads, the roads constituting the line and making use of it are merely parts of one through route and are not separate lines. In 1897, in the case I. C. C. v. Ala. Midland Railway (168 U. S., 144), the supreme court decided that railroad and trade competition created dissimilar circumstances and conditions. This practically nullified the clause, since the discrimination arises ordinarily because of railroad and trade competition and the clause was intended to protect the cities from this particular working out of competition. In the Act of 1910, Congress attempted to strengthen the clause by eliminating the phrase "under substantially similar circumstances and conditions." The law provided that there should be no higher through rate than the sum of the local charges, and that a

rate lowered to meet water competition cannot be raised merely because the water competition has ceased. In 1914, in the case of *U. S. et al. v. A. T. & S. F. Ry.* (234 U. S. 476), the supreme court held that the new section was constitutional, since Congress laid down in other parts of the Act the principles to govern its application; and, furthermore, it was held that the Interstate Commerce Commission might prescribe a percentage system in allowing deviations from the strict long and short haul clause.

7. The Commodities Clause.—The Act of 1906 prohibits carriers from transporting commodities (except timber) produced by them, or in which they have an interest direct or indirect. This was aimed primarily at the railroads which were interested in mining anthracite coal. Operators of independent mines claimed that rates were put so high that they could not make a profit. It was a matter of indifference to the railroad whether the profit was made on the mining or the carrying of the coal. In 1909, in the case *United States v. Delaware and Hudson Railroad* (213 U. S., 257), the supreme court held that the clause was constitutional, but that a railroad owning the share capital of a coal company did not possess an interest direct or indirect in the coal mined. A railroad which is the legal owner of the coal at the mine might escape the interdiction of the law by selling the coal before the transportation began. This seemed to destroy the effectiveness of the clause; but, in 1911, in the *Lehigh Valley* case (200 U. S., 257), the supreme court held that it was illegal to use stock ownership for the purpose of destroying the entity of the producing corporation while its affairs and those of the railroad were administered in such a way as to make the two corporations virtually the same.

8. **The Application of the Sherman Anti-Trust Law to Railroads.**—The intense competition between railroads often resulted in rates which made traffic unprofitable. In order to control this competition, the railroads combined into pools. There were two types of pools, the traffic pool and the money pool. The traffic pool may be illustrated by the agreement, made in the seventies, between three railroads running between Chicago and Omaha. These railroads were of approximately equal strength, and the agreement was that each should get one-third of the traffic. In order to run a pool of this sort, some provision must be made for diverting traffic from one road to another in order to even the amount carried. In this case, the eveners were the shippers of live stock.

A money pool means that earnings shall be divided in a certain percentage. In practice, the method was to allow the railroad to retain a certain percentage of the receipts to cover the bare cost of hauling the traffic. The amount in excess of this was turned into the common fund and divided among the railroads according to the agreed upon percentages. In some of the cases, these pools had been successful in maintaining peace between the competing railroads. The Act of 1887 prohibited railroads from pooling or in any way dividing net earnings.

After the pools were given up, the railroads attempted to get virtually the same result through rate agreements. Various freight associations were formed which practically set the freight rates in a given region. In 1897, a case was decided by the supreme court, *U. S. v. Trans. Missouri Freight Assn.* (166 U. S., 290), which held that the Sherman law applies to railroads whether the combination is reasonable or unreasonable and even in the absence of the intent

to restrain commerce. It is rather interesting that the Sherman law, which was supposed to regulate industrial combinations, should have been first used effectively against railroads which were supposed to have been regulated by the Interstate Commerce law.

In 1898, in the case of the *U. S. v. Joint Traffic Assn.* (171 U. S., 505), the court again held that the activities of the traffic association violated the Sherman law and that it was no defense to say that the railroad rates established were reasonable. The fact of combination was sufficient to make the association illegal. In 1904, the Sherman Anti-Trust law was again called upon to suppress the practice which had grown up as a result of prohibition against pooling and traffic associations; namely, the practice of combining railroads. The case was the *Northern Securities* case (193 U. S., 197). The supreme court held that the Sherman law embraces all direct restriction of trade and every device for restraining commerce. The *Northern Securities Company* was a holding company with a state charter. The supreme court held that the state privilege of a holding company did not shelter it against congressional action. The court held that Congress has a right to prescribe the rule of free competition in interstate commerce, and to declare anything illegal which hinders it. In 1912, the law was again utilized to break up the combination between the *Union Pacific* and the *Southern Pacific Railroads* (226 U. S., 61). The supreme court decided that there was a combination of competing railroads and that such was against the law.

9. Federal and State Regulation of Interstate Commerce.
—One serious problem with respect to regulation in the United States arises from our form of government. The

federal government has only such powers as are directly delegated to it by the Constitution, or as are implied in the delegation of other powers. The states have all of the powers not so given. The United States Constitution says, Section VIII:

"The Congress shall have power.....to regulate commerce with foreign nations and among the several states and with the Indian tribes."

Many disputes have arisen as to the precise spheres of regulation of the two governing bodies and the exact determination of what is interstate commerce. Some of the more important cases will be considered.

Cases in Point.—A case in 1872 (*Reading R. R. Co. v. Pa.*, 15 Wallace, 232) held that in the absence of federal regulation, state regulation might extend to such matters as bridges, dams, health, etc., but that the transportation of passengers or traffic between states is subject only to the federal government. Two cases in 1876 favored state regulation.

Some Western States had passed laws regulating the railroads, some prescribing rates and some providing commissions with power to set rates. This legislation is called "Granger" legislation from the farmers' "Granges," local bodies of a society which grew up to promote the interests of the farmers. The railroads fought the legislation. It is interesting that the railroads were aligned against state control and denied the right of the states to regulate. One case (*Munn v. Illinois*, 94 U. S., 113) held that where the federal government had not regulated rates the states might do so; that states could control warehouse charges, though they were part of the instruments of interstate commerce; and that the state has the right to prescribe

rates where the business is fraught with public interest. A branch of the English Common Law had developed the Law of Public Callings. These callings included innkeepers, common carriers, etc. The law set forth that they must serve all who come, with adequate facilities, at reasonable rates, with no discrimination. This decision amounted to applying the Law of Public Callings to railroads.

The second case (*Peick v. C. & N. W. Ry.*, 94 U. S., 164), in 1876, held that until Congress undertakes to legislate on interstate rates, Wisconsin may regulate rates within the state, even though such regulation may indirectly affect rates outside of the state. This permitted the states to develop a fairly satisfactory system of regulation, each state regulating the part of the haul which was within its own borders. In 1886, however, a new case (*Wabash, etc., R. R. Cos. v. Illinois*, 118 U. S., 557) held that a state could not regulate the part of an interstate haul which was within state lines. This reversed the idea that a state could regulate interstate commerce in the absence of federal regulation, and was one of the important influences which led to the passage of the Interstate Commerce Act of 1887.

In 1896, the scope of federal authority was widened in the *Social Circle* case (162 U. S., 184), which held that when goods are shipped on a through bill of lading, they constitute an interstate carriage subject to federal supervision and control. Even if a road were entirely within a state, it became part of a continuous line, not by consolidation with other companies, but by traffic arrangements for continuous carriage or shipment.

In 1907, the control of the federal courts was extended in a case (*Ex parte Young*, 209 U. S., 123) which held that

the federal courts could review state-made rates to see whether they were so low that they amounted to taking property without due process of law, which is prohibited in the Fourteenth Amendment to the Constitution of the United States. This case, it is seen, does not depend on the rates being interstate rates. It applies to rates on traffic wholly within the state.

The Minnesota Rate case (33 Sup. Ct. Reporter, 729), in 1913, arose in connection with state rates prescribed by the state commission of Minnesota. The supreme court held that Congress controls interstate commerce, even though by so doing it incidentally controls intrastate commerce. The power of Congress is exclusive where the subject requires a general system or uniformity of regulation. In things admitting diversity of treatment according to special local requirements, the states may act within their respective jurisdictions until Congress sees fit to act. But when Congress acts, its authority overrides all conflicting state legislation. There is no limitation on the state control of intrastate rates because of a dormant power of Congress. Congress must really act. The possible conflict might arise in two ways:

First, if a state enforced extremely low intrastate rates, the railroads would be forced to charge higher rates on the interstate hauls and so the state would be controlling the interstate rates. The *second* conflict is illustrated by the two cities at the head of the Great Lakes, Duluth, Minnesota, and Superior, Wisconsin. Obviously the rates from these two places to Minneapolis must be the same or all of the business would go to the one which had the lower rate. If Minnesota prescribed a low rate to Duluth, which is an intrastate haul, it virtually would be setting the rate

to Superior, which is an interstate haul. But the court said in this case that Congress had not acted.

The Shreveport cases (*Houston E. & W. Texas Ry. Co. v. U. S.*, and *Texas and Pacific Ry. v. U. S.*, 234 U. S., 342), in 1914, disclosed a case where Congress had acted. The Interstate Commerce Act prescribed that rates should not discriminate between places. The supreme court held that if a state-made rate causes discrimination against an outside point, the power of Congress is supreme and Congress has acted so the intrastate rate must be changed. Many state railroad commissions had acted on the assumption that it was their function to get all the advantages possible for the shippers within the state. Thus, the purpose of the rates set by the Texas commission out of which this case grew was to promote the jobbing centres of Texas and hinder the development of jobbing centres outside of the state. The Interstate Commerce Commission, following this decision of the supreme court, set rates from Shreveport, Louisiana, to Texas which indirectly set the state rates, since they were not allowed to discriminate against Shreveport (41 I. C. C. R., 83).

10. State Railroad Commissions and Regulation.—In the preceding section, we have indicated the respective spheres of state and federal regulation. There are two types of state railroad commissions, the strong and the weak. Massachusetts in 1869 had a commission. Its powers were merely advisory. After investigation it could make known its conclusions. It depended on public opinion to get its suggestions carried out. In 1913, Massachusetts finally decided to have a commission of the other type. The Middle Western States were the first to have commissions of the strong type. The most important

power of these commissions was the power to fix rates. However, they have many other powers. They often require trains to stop at certain stations; they can prescribe sanitary regulations. Some states either by direct legislation or through their commissions have attempted to prescribe classifications and rules about the size of car-load minimums. Before the war, many of the states had laws setting 2¢ a mile as the maximum rate for passengers.

The present tendency is for states to have public utility commissions. These are practically the old state railroad commissions, having the added task of looking after public utilities.

In New York State there is a division of the field. The Public Service Commission for New York City consists of one member; the commission for the remainder of the state of five members. All are appointed by the governor with the advice and consent of the Senate. The term of office is five years. The commission can compel the attendance of witnesses and the giving of testimony. They have supervision of railroads, street-railroads, gas companies, electric-light companies, telephones, and telegraphs. These companies are required to make annual reports to the commissions in a prescribed form.

The provision about railroad rates is that they must not be "unjust, unreasonable, unjustly discriminatory or unduly preferential," nor "insufficient to yield reasonable compensation for the services rendered." The commission is given the power to set rates and to see that "regulations, practices, equipment, appliances, or services" are "just, reasonable, safe, adequate, and proper." Specifically this means, for example, that they can order new tracks,

new terminals, more trains, and set the times of starting trains.

The approval of the commissions is necessary for the issue of stocks and bonds.

11. The Railroads and the War.—We have seen that during the war all the energies of the people were concentrated on the one task of winning the war. Of course, transportation was one of the most important factors in the struggle. In addition to the increased traffic due to the manufacture and transportation of munitions of war, the railroads were called upon to move great bodies of men to training-camps and later to seaports to take ships for Europe. The first step was to try to unify the service and bring about co-operation between the roads. Here a strange situation was encountered. The policy of regulation adopted by the United States had aimed to force the carriers to compete with each other. The railroads in their efforts to co-ordinate their activities were hampered by laws against agreements and combinations. After the declaration of war, the presidents of the railroads met in Washington and perfected an organization called the Railroads' War Board. This board did much to promote the effective use of the railroads. Complete co-ordination was not possible.

Another difficulty in the way of successful co-operation lay in the competitive organization of the railroads. They were organized for profit. Complete unification of facilities would bring many difficult problems. Frequently, one road had advantageously placed terminals. Should it allow other roads to use them? If so, on what terms? Perhaps the general interest would have been served by having one road carry nothing but low-grade freight. But

would the managers have been justified in accepting this task if by so doing the return to the stockholders would have been cut down?

An act passed August 26, 1916, gave the President power to take over the transportation system. Exercising this power, the President issued a proclamation December 26, 1917, taking over all of the systems of transportation in the country on December 28, 1917. The secretary of the treasury, Mr. McAdoo, was made director-general of railroads. Mr. McAdoo turned back to their owners many small roads, called "short lines." He did not wish to make up deficits in their operation. The Federal Control Act was signed by the President on March 21, 1918. It provided for the operation of the railroads for the war and a period not exceeding twenty-one months after the proclamation of the ratification of the treaty of peace. The roads were to get as compensation the average net operating income for the three-year period ending June 30, 1917.

The government agreed to return the roads and equipment in as good condition as they were when taken over.

Mr. McAdoo at once raised freight rates 25 per cent and passenger fares to 3¢ a mile, and state-made rates which conflicted were set aside.

The war brought a truce in the conflict between the federal and state regulation. Since the government itself was setting rates, the state commissions refrained from interposing objections to any of the acts of the administration.

The wages of all classes of employees were raised, and the salaries of some of the higher officials cut. Wages were standardized over the whole country. At first, the operating staffs of the railroads were not changed; later federal

managers were appointed. A regional plan of operation was adopted. At first there were three regions; finally, nine regions and districts.

The government operated the railroads at a loss. The authorities did not think that it was wise to raise rates very high. Probably they were afraid that the addition to the cost of living would be unpopular.

After the armistice, there arose a demand for a continuation of the governmental operation of the railroads. Various reasons were urged in support of this policy. Those who believed in government ownership thought that it might be a step in the direction of that policy. It was urged that it would ease the transition involved in reconstruction.

On December 24, 1919, the President announced that the roads would be returned to their owners on March 1, 1920. Congress had presented to it many plans for railroad control. The Railroad Administration proposed that federal control be continued until January 1, 1924, and that combinations be made which would result in a comparatively small number of strong companies. The Interstate Commerce Commission suggested closer financial control, the permitting of united actions, and stricter regulation of service and equipment. The railroad executives advocated federal incorporation of railroads and a new member of the cabinet, to be called the secretary of transportation, who would see that the railroads got adequate rates.

Railroad labor brought forward the Plumb plan. Under this plan the government would own all the railway properties and turn them over to a single corporation to operate, under a management representing the employees, the

operating officers, and the public. The profits were to be divided equally between the employees and the government. The security owners wished the roads to be returned; they advocated that regional commissions be set up in addition to the Interstate Commerce Commission, and that legislation requiring rates adequate to yield a certain return to the railroads be passed. The state railroad commissions thought that they should have their former power and also new functions in connection with the Interstate Commerce Commission. The outcome of the situation was the passage of the comprehensive law now to be reviewed.

12. The Esch-Cummins Law.—The new bill, which became a law February 28, 1920, called the Esch-Cummins bill, contains many important provisions.

(a) The roads were to be turned back to their owners March 1, 1920.

(b) Indebtedness of the roads to the government for betterments might be funded into 6 per cent bonds running for ten years.

(c) Rates could not be reduced before September 1, 1920, without the approval of the Interstate Commerce Commission.

(d) A railroad might agree to accept from the government a guarantee of earnings for six months equal to that guaranteed under federal control. Any excess would belong to the government.

(e) Loans might be made by the government to carriers at 6 per cent to run not over five years.

(f) For labor disputes, two provisions are made. One is for voluntary adjustment boards, and the other for the Railroad Labor Board. This latter has three members rep-

representing the employees, three representing the carriers, and three representing the public. The board has wide powers in starting and conducting investigations and settling disputes. No penalty, however, is provided for violation of a decision of the Labor Board.

(g) Wages of the employees of the carrier were not to be reduced before September 1, 1920.

(h) Rates are to be set which will yield the carriers $5\frac{1}{2}$ or 6 per cent on their property.

(i) The Interstate Commerce Commission is to report on a plan for merging the railroads into a limited number of systems. It can permit mergers and division of traffic or earnings if such are considered wise.

(j) The commission can require the joint use of terminals.

(k) After ninety days the commission must approve any extension or abandonment of railroads.

(l) After one hundred and twenty days the commission must approve all security issues except notes maturing in not over two years and to an amount not greater than 5 per cent of the securities outstanding.

(m) The commission is given control over car-service.

(n) The commission is increased to eleven members and their salaries made \$12,000 a year.

The New Provision About Rates.—The problem of setting a general level of rates has always been a puzzling one. In a given region we find strong, well-constructed, favorably located railroads, and weak and poorly constructed and unfavorably located ones. A rate level which would permit the latter to make expenses would bring big earnings to the former. A rate adequate to give the strong road a fair return might bankrupt the weak road. The new law

provides an ingenious solution. The commission may establish groups and set a value on the railroad property. Each group as a whole shall have rates that will give a yearly return for two years of $5\frac{1}{2}$ per cent (or 6 per cent if the commission so decides) on the value of the group as a whole. After two years the rate of return is left to the commission. If a carrier makes more than 6 per cent, one-half of the excess goes to a surplus fund until it is 5 per cent of the value of the property, and one-half to the commission as a general contingent fund. After a railroad has the 5 per cent surplus, it can do as it pleases with its share of the excess earnings. Some question the constitutionality of this taking of earnings for the benefit of other roads. No doubt it will be tested as soon as some railroad has such excess earnings.

13. Railroad Valuation.—There are several reasons why a valuation of railroad property needs to be made. The two principal ones are for the purpose of taxation and as a basis for regulating rates. Many railroads are such big corporations that they are rarely bought and sold as a whole. Sometimes small railroads are so bought. More frequently control is obtained by buying a certain amount of the stock. The conditions surrounding each road are so peculiar that we could scarcely say that there is a market price which could be taken as the fair value. The different methods of valuation for taxation will be discussed under corporation taxes.

Railroads come under the Law of Public Callings and are required to charge reasonable rates. When the courts define reasonable rates, they say that they are rates which will permit the road to earn a reasonable return on a fair valuation of the property used. Thus, we must find the

value of the property in order to determine the rate level. There are several proposed bases for valuation.

Earnings.—The business man at once thinks of earnings as the true basis of value. Unfortunately, earnings will not serve to give us a valuation for rate-making, since they depend on the rates. To illustrate: if under a given level of rates a railroad has net earnings of \$8,000,000 and the current rate of return on such investments is 8 per cent, we get a valuation of \$100,000,000 for the road. The road makes 8 per cent on the valuation. But the road makes this return simply because we have capitalized the earnings at 8 per cent. No matter how large or small the earnings are, the result would be the same. Thus, any rate level, high or low, could be justified.

Original Cost.—Many people say that the road should be allowed to earn on a valuation which represents the capital that was really invested in the road. With old roads this basis is wholly impracticable. The records are not available. Think of trying to find just how much money had been invested in the New York Central. Even if the records were available, there would be serious objections to cost as a basis. We have seen in Turner's Introduction, page 179, that cost does not determine value.

Many of the roads were built by construction companies which sold them to the railroad company for about double what they had cost. Why should roads be allowed to earn on a valuation which allows for wasteful and inefficient building? Why should they be allowed to capitalize their mistakes and perhaps their corruption?

Original Cost with Depreciation.—This is a slight improvement over the former basis. For, if the depreciation is fairly handled, many of the mistakes will be corrected.

However, it could not be made the basis for rate-making because of the lack of records for most of the railroads.

Cost of Reproduction, New.—This method aims to determine the property a railroad owns and uses for transportation, and holds that such property is worth what it would cost to replace it. So far this seems fair enough. The application is not difficult in the case of engines, cars, most buildings, and bridges. There is considerable difficulty when it comes to roadway. Take a railroad which is crossed by several other roads. If it were to be rebuilt now, the material could be hauled on the roads and the work started at a number of different points. Perhaps the road when originally built was the first road in that part of the country and had to be built all from one end. Again, it is nearly impossible to tell just how much has been done in the way of cutting, filling, and grubbing. However, the chief defect is that no allowance is made for depreciation. The advocates of this method say that none is necessary because the owners keep the road in good state of repair so that it performs the same transportation service which a new road would perform. Indeed, they say that the service is better than a new road would give because the road-bed has settled, etc. Perhaps the analogy is not fair, but would a man pay as much for a two-year-old automobile as for a new one, even though it had been kept in good repair?

Cost of Reproduction, Less Depreciation.—This basis seems fairest if we are using valuation in the sense of what the road would sell for. There are still many difficulties, but they are not insuperable.

There has been an interesting shift in altitude with regard to this basis. In the days after the Civil War down to

about 1896, general prices were declining and improvements were cheapening steel and railroad equipment. In this period, shippers and state railroad commissions urged cost of reproduction, less depreciation, as the basis for valuation and the railroads opposed it. Since 1896 we have had in general rising prices, and now most of the railroads are in favor of cost of reproduction as the basis and most of the shippers and state railroad commission oppose it. Each side advances the theory which will get the high or low valuation they desire.

Capitalization.—A few people advocate capitalization; that is, the outstanding stocks and bonds as the basis of valuation. They evidently have a childlike faith in the numbers on the stock certificates. Contrary to the popular notion, the objection to this method is not that most roads are overcapitalized but that they are undercapitalized. There are, of course, cases of gross overcapitalization; and it would be very wrong to reward such overcapitalization by allowing large earnings, and to penalize the conservatively capitalized roads which had turned back their earnings into improvements and had charged the improvements to operating expenses.

Market Value of Stocks and Bonds.—This method would be better than the preceding one. It is, however, really only a variant of the earnings method. For the prices of the stocks and bonds depend on the earnings. In the case of small roads and old underlying issues of bonds, it would be difficult to get market quotations.

The Problem of Railroad Land.—Many of the Western railroads were aided by land grants from the government. Through the public lands, the roads were given a right of way and alternate sections of the land for a number of

miles back from the road on both sides. The land over which the roads run has become valuable. Some people have argued that the roads should not be allowed to count the value of their right of way in making up their valuation since it had originally cost them nothing. In addition to the fact that it is present value and not cost in which we are interested, it seems fair to suppose that the land grant was given to encourage the building of the railroads earlier than they would otherwise have been built and that the public got their return through the development of the country. Some have said that the railroads should not have the benefit of the unearned increment. It may be urged that the railroads are really responsible for the increment in value, and even if they were not, so long as others enjoy the increment, the railroads should also enjoy it.

14. Exercises.—1. Why is the study of government regulation of railroads important?

2. What was the chief complaint at the time of the Windom Report? What was the theory back of the remedies proposed?

3. What was the chief complaint at the time of the Culom Report?

4. What forms of transportation are now regulated by the Interstate Commerce Act?

5. Why is water transportation less regulated?

6. What is the distinction between regulation and management? Do any of the powers of the Interstate Commerce Commission amount to management?

7. How do you explain the growth of the powers granted to the Interstate Commerce Commission?

8. Make a list in general terms of the powers of the Interstate Commerce Commission.

9. What advantage does enforcement of the law by the Interstate Commerce Commission have over enforcement by the courts?

10. Recount the ways in which the courts hampered the Interstate Commerce Commission in enforcing the law.

11. What is the attitude of the supreme court toward the orders of the Interstate Commerce Commission at the present time?

12. Give the pros and cons of having a commerce court.

13. What does the Interstate Commerce Act provide with reference to rates? What is the objection to rebates when large quantities are shipped?

14. What is the importance of the provision about the burden of proof of the reasonableness of rates?

15. Why are there such detailed requirements about the filing of tariffs?

16. Explain why, for a long time, goods shipped to Reno, Nevada, paid a higher freight rate than the same goods shipped to San Francisco, California.

17. What are the provisions of the present long and short haul clause?

18. Why was the commodities clause put into the law? How has its enforcement been hampered?

19. Explain how the different types of pools operated.

20. Argue that if rates are regulated pools are desirable from the standpoint of the public.

21. What have been the practical results of the use of the Sherman Anti-Trust Act against the railroads?

22. Indicate broadly the spheres for state and federal regulation of transportation.

23. What does the law require of public callings?

24. When does a business become a public calling?

25. Explain how the federal courts get their jurisdiction over intrastate rates.

26. How can the Interstate Commerce Commission really control intrastate rates?

27. Leaving aside the question of constitutionality, which seems preferable, state or federal regulation of rates?

28. Indicate how the early Massachusetts State Railroad Commission got results and the special conditions which enabled them to do so.

29. What were the important powers of the Western state railroad commission?

30. What evils have resulted from the activities of the state railroad commission?

31. What difficulties did the railroads encounter in their efforts to co-operate during the war?

32. What return did the government give to the owners of the railroads for the use of them?

33. Discuss the wisdom of raising railroad wages more than railroad rates.

34. Outline the various proposals for railroad control submitted to Congress.

35. Explain carefully the provisions of the Esch-Cummins law with reference to rates and labor conditions.

36. Discuss the following bases for valuation of railroads: original cost, original cost less depreciation, cost of reproduction, new, cost of reproduction less depreciation, and earning power.

37. On the basis of our experience with the regulation of railroads, outline the probable course of an attempt by the government to regulate the price of trust-controlled goods.

CHAPTER XIII

UNFAIR COMPETITION

1. What Is Competition? 2. What Is Unfair Competition? 3. The Federal Trade Commission and Unfair Competition. 4. *a.* Deceiving the Consumer. 5. *b.* Coercing Middlemen. 6. *c.* Injuring Competitors. 7. *d.* Misuse of Government Protection and Public Utilities. 8. Exercises.

This chapter illustrates the economic problems which arise in connection with the fundamentals of our present economic order. It also aims to prepare for the discussion of trusts.

1. What Is Competition?—Competition has been called “the life of trade.” The competitive system, the organization of economic life on the basis of individual initiative, has been denounced particularly by the socialists. Obviously, those favoring and those opposing competition must have their thought on different aspects of competition. Competition in its essence is striving to win. Those who oppose competition fail to see that the means employed to win are subject to what we may call the “rules of the game.” The analogy to sport is instructive. Perhaps football is the most strenuous game. The players on each side strive to win, but their activities are limited by two codes: *first*, the rules as laid down by the official bodies; *second*, what is commonly called good sportsmanship. The distinction between hard playing and “dirty” playing is clearly recognized. The standards of sportsmanship vary in different contests. We expect better spirit between two college teams than between two teams of “muckers” on the town lots. In business we find competition controlled

partly by law and partly by the "public opinion" of the group. This "public opinion" is sometimes specifically formulated in a code of ethics, as in the case of medical associations for the doctors, bar associations for the lawyers, and underwriters' associations for the insurance agents. Usually it is not so formulated, and the code is an unwritten but none the less effective general opinion as to the types of things which are fair or unfair in the matter of competition in the particular industry or trade.

2. What Is Unfair Competition?—The general principles back of the objections to certain acts and the branding them as unfair will usually be found to be (*a*) that they injure the competitor, and (*b*) that they prevent the most efficient producer or trader from winning. In either case, the general public welfare is threatened.

These principles are closely related. Dynamite applied to a competitor would be condemned both because of injury to the competitor and because there is no assurance that the undynamited firm is the efficient one. The public is interested in having the most efficient producer or merchant serve it. So the public opposes any practice, and calls it "unfair," if it hinders the working of the efficient and promotes the inefficient, or if it prevents competition from working and gives monopoly a chance.

3. The Federal Trade Commission and Unfair Competition.—The act creating the Federal Trade Commission declared that "unfair methods of competition are unlawful." The Clayton Act mentioned some specific practices as being unfair; namely, certain

(1) Price discriminations; thus the Standard Oil Company used to sell at high prices where there was no competition and at low prices where there was competition.

(2) Tying contracts; the Eastman Kodak Company used to require dealers who wished to handle their goods not to handle the goods of competitors.

(3) Intercorporate stockholdings to limit competition; this was a common device among the railroads. The Pennsylvania Railroad, at one time, held considerable stock in the Baltimore and Ohio Railroad, a competing line.

(4) Interlocking directorates to limit competition; here again the railroads show many instances. The Great Northern Railway and the Northern Pacific Railway had common directors, though they are competing lines.

An interesting part of the activities of the Federal Trade Commission has been the consideration of the trade practices. Sometimes complaint is made to the commission of some specific practice. A hearing follows and a decision. Sometimes the commission calls together representatives of the entire industry and asks them to state in concrete form the practices which are unfair. The commission is not bound by the report but presumably gives it great weight. In the report for the year ending June 30, 1921, it is stated that such conferences were held in the creamery, rebuilt typewriter, pyroxylin plastic, macaroni, and butter industries.

In the same report (pages 56-57), the commission lists the methods of competition which it condemns. We may give the substance of the various practices and attempt a classification. It is obvious that some of the practices might well be put under more than one classification, but they are put in the classification which seems to cover best their primary aim or effect.

4. (a) **Deceiving the Consumer.**—The fabric may be misbranded, as mercerized cotton sold for silk, and part wool sold for all wool.

The quality may be incorrectly marked as selling "off sugar" as standard granulated.

Celluloid may be sold as ivory, tortoise-shell, or amber.

The source of supply may be falsely suggested: paper made in the United States sold as if made abroad; Japanese safety-matches packed to look like Swedish matches.

Adulterations are sold for the pure article. False and misleading advertisements are used. A company advertised phonographs alleged to have been sold by a storage company for charges, when they had not been so. A list of groceries was advertised as being a great reduction, while what was lost on the well-known goods was made up on the less well known.

The goods of one manufacturer are passed off for the goods of another. This is done by making the firm name similar, as Goodwear Tire and Tube Company for Good-year Tire and Rubber Company. The product and advertising are often copied.

False statements are made in advertising stock of corporations for sale; all are familiar with the wonderful oil-wells possessed by new oil companies. Rebuilt typewriters are sold for new. Old motion-pictures slightly changed are sold as new.

Some concerns claim to be selling goods at a profit when they are sold at cost, in order to discredit their competitors.

Premiums of unequal value are sometimes given, thus in effect conducting a lottery. Big packages, partly filled, are used to make the consumer think he is getting a large quantity.

Packages of other than standard weight are used, and the consumer thinks he is getting more than he does get.

5. (b) **Coercing Middlemen.**—To quote the commission for one case: "Trade boycotts or combinations of traders to prevent certain wholesale or retail dealers or certain classes of such dealers from procuring goods." The situation here is that some dealers are irregular usually because they sell direct to consumers instead of to retailers. Sometimes the refusal is to sell to chain stores or mail-order houses.

During the war an interesting case arose. A film company made false charges of disloyalty to the government against those who would not show its picture "Mothers of Liberty."

In one of its aspects resale price maintenance comes under this classification. The manufacturer insists that the retailer sell the article at a certain price.

6. (c) **Injuring Competitors.**—

(1) *Competitors' goods:* Many false statements are used alleging that the goods are defective.

Sometimes competitors' goods are put up for comparison with the sellers' product and wilfully injured so they will not give a fair test. The salesmen of a cash-register company were accused of tampering with their competitors' goods.

A baking-powder company says that its competitors' powders contain alum and that alum is injurious.

(2) *Competitors' good name:* Besides general abuse, false statements are sometimes made to injure the credit of concerns.

(3) *Competitors' organization and operations:* Concerns sometimes try to get employees of their competitors to violate their contracts and sometimes they try to break up the organization of their competitors by inducing a great many of their employees to leave at one time.

By espionage and bribery, they try to get the trade secrets of a rival. They wish to appropriate the results of the ingenuity and labor of their competitors. Thus, a music-roll company did not, at great expense, make master rolls but merely copied its rolls from the rolls of another company.

A yeast company took away the experts from a rival company.

A scrap-iron company took scrap consigned to another company. This case appears to be ordinary theft rather than unfair competition.

(4) *Hindering the buying and selling of competitors:* One concern will prevent another from selling to a firm by bribing the buyer of that firm, by commissions or presents.

A yeast company was accused of making large contributions to bakers' associations to hinder others from getting business. Agents often, by misrepresentation, get customers to break the contracts made with a competitor.

Sometimes firms, by misrepresentation, prevent their competitors from getting advertising space.

Mail-order houses are harassed by requests for estimates and catalogues, especially those selling lumber and mill-work by mail.

Big concerns sometimes bid up the price of raw materials in a locality to prevent the small local manufacturer from getting material to work with.

(5) *Practices aiming at, or resulting in, monopoly:* Goods are sometimes given away to hamper small competitors.

In the oil business, especially, equipment is loaned or sold at cost or leased for a nominal sum if it will be used only to distribute the product of one company.

Concealed subsidiaries are used, "bogus independents"

they are often called. The Standard Oil Company and the American Tobacco Company used many such independents.

Goods are sold with agreements as to the price at which they are to be resold.

7. (d) Misuse of Government Protection and Public Utilities.—Railroad rebates used to be a common form of unfair competition. The Federal Trade Commission does not mention them, for the Interstate Commerce Commission has jurisdiction in such cases.

The Federal Trade Commission does prohibit the practice of using agents of common carriers, as did one creamery company, to solicit business, and the practice of getting the names of competitor's customers from railroad agents.

The patent has been a fertile source of unfair methods of competition. Many of the tying contracts are based on a patented article. Thus the mimeograph patent was made the basis of an agreement to use in its operation only the supplies purchased from the company that made the mimeograph. Also many of the resale price agreements were in the form of a license to use a patented article. Thus, the Victor Company aimed to control the price of the Victrola and the Victrola records. Threats of suits claiming violation of patents are common. Some concerns make false claims that they have patents covering some article and attempt to prevent others from making or selling the article.

8. Exercises.—1. Discuss the analogy between competition in business and the "struggle for existence" among animals.

2. Give some of the items in the code of ethics of doctors, lawyers, or insurance agents.

3. Is the aim of such codes of ethics to protect the public or the members of the association?

4. From the standpoint of the low-price town, is there any objection to price discrimination?

5. Under what conditions is a tying contract effective?

6. Give instances where intercorporate stockholdings might limit competition.

7. Give instances where you consider interlocking directorates desirable.

8. Why not have all goods tested and certified to by public authority?

9. If a fabric look like silk, why not call it silk?

10. What interest has the public in preventing the coercion of middlemen?

11. Has a company a property right in its organization which the courts should protect?

12. From the standpoint of the public, what is the objection to the practice of the buyer for a firm receiving direct or indirect commissions from the dealers from which he buys?

13. Argue for and against resale price maintenance.

14. Why should not the agents for common carriers be allowed to solicit business for particular firms?

CHAPTER XIV

THE TRUST PROBLEM

1. What Is a Trust? 2. Causes for the Growth of Trusts. 3. Minor Causes for the Growth of Trusts. 4. The Common Law About Combinations. 5. Forms of Combination. 6. Pools. 7. The Trust in the Legal Sense. 8. The Holding Company. 9. The Merger or Amalgamation. 10. The American Tobacco Company. 11. Exercises.

1. What Is a Trust?—The word trust, as applied to business organization, originated in the use of a legal device to effect combination. This device will be described later. The public then applied the word to all combinations in industry, whatever the form of organization. And now finally it is applied to large businesses, whether they are combinations or not. In the use of the word, there is always the idea that the business is dominant in its line, particularly that it has enough control to have considerable influence on prices. Public utilities, even though they arise from combinations, are not usually called trusts.

2. Causes for the Growth of Trusts.—In other places consideration has been given to the advantages of large-scale production,¹ the gains which are possible from monopoly,² and the unfair methods of competition³ which have been used against competitors. These are the primary or underlying causes for the growth of trusts. The Industrial Revolution brought in a new technic of manufacture, which by the use of power machinery greatly increased production; and a new technic of transportation, which made possible an almost indefinite widening of the market. As

¹ Turner's Introduction, chap. XXV.

² *Ibid.*, chap. XXVI.

³ Chap. XIII of this book.

the business units grew in size, competition became more fierce; so, attempts were made to eliminate, by combination, the losses sustained in this competition. And by using certain unfair methods of competition, combinations were able to strengthen their hold on the industry or perhaps get a complete monopoly.

3. Minor Causes of the Growth of Trusts.—In addition to the primary or underlying causes, there are other causes which contributed to the growth of certain trusts.

Profits in Promotion.—From 1898 to 1901, there was a veritable craze for the promotion of trusts. Certain men perfected plans for combination. The public seemed to have an insatiable desire to invest in the securities of trusts. Because of the rivalry and bitterness of the competitors, frequently an outside promoter could bring about an agreement more easily than any one directly connected with the industry. For his services, the promoter was richly rewarded. So, often, the initiative for the formation of the trust came from a promoter who thought that he saw a chance for profit.

The Tariff.—Mr. Havemeyer, who was interested in the early sugar trust, once said that the protective tariff was the mother of the trusts. Most students of the question would not agree with him. Great Britain, with a purely revenue tariff, has had a development of trusts. However, the tariff may have some influence. It narrows the field of competition and gives the home market to the trust to exploit. Again, a protective tariff may lead to an over-expansion of an industry and so cause intense competition and finally a combination. Probably the tin-plate combination can be traced fairly directly to the McKinley tariff bill of 1890.

Railroad Rebates.—Favors from railroads undoubtedly helped some trusts to grow. The Standard Oil Company made effective use of this device for getting the better of its competitors. With stricter governmental control, direct rebates have disappeared.

Patents.—At times, patents have been used as the basis, both of the combination and of the fight on outsiders. Thus, the bathtub trust was held together by a system of licenses to use patents covering the process of putting on the enamel. Threats of suits for alleged infringement of patents have been a common method of unfair competition.

4. The Common Law Concerning Combinations.—The English common law is the law which comes from precedent, not from the act of a legislative body. The early rule was that all contracts in restraint of trade were void. Later, the rigor of the rule was relaxed, and certain contracts in restraint of trade were held to be reasonable and enforceable. The interests of both the public and the parties to the contract must be considered. A typical contract has to do with the sale of a business with the agreement not to engage in that business within a certain territory and for a certain time. Obviously, if a man cannot make such a contract, he will be unable to sell his business. Monopoly is not necessarily aimed at by the buyer. As time went on, the area in which the courts permitted a man to agree not to start up business grew wider and wider. The growth was due to the recognition of the increase in the size of the competitive area which comes with the development of transportation.

Agreements to raise prices are invalid, under the common law, because the interest of the public is directly attacked.

When the contracts are declared to be in unreasonable restraint of trade, the courts refuse to enforce them. It may not be a crime to enter into them (legislation often makes it such), but they are useless unless the other parties live up to the agreement voluntarily.

5. Forms of Combination.—One clew to the development of combination is the form of organization used. Here at times we find certain inherent economic advantages or disadvantages of the forms causing the changes. But more frequently the change is brought about by legislation or court action. Indeed, the different forms which combinations have taken in the various countries can be explained usually by the difference in the laws of the countries. Thus, in Germany, the *kartell*, which corresponds in general to our pool, persists because the contracts upon which it is based can be enforced.

In the United States, combinations have taken the form of the pool, the trust in the legal sense, the holding company, and the merger. It is not implied that the forms became extinct, but merely that they ceased to be the typical forms of combinations. Thus, the pool is still used at the present time, though not as a means of building up big permanent combinations.

6. Pools.—The pool is an agreement to limit competition. It has taken on many forms, such as: agreeing on prices, dividing the field, limiting output, and selling through a common agency. Railroads as well as trusts have used pools.

Professor Jenks gives an account of the Michigan Salt Association.¹ The salt industry in Michigan had a rapid growth after 1860. Intense competition arose, and some

¹ Ripley, *Trusts, Pools, and Corporations*, pp. 1-21.

of the competitors were ruined. So, in 1868, an association was formed which handled about four-fifths of the product. The association lasted until 1871, after which time competition ruled for five years. Then, in 1876, the Michigan Salt Association was formed. It controlled about 85 per cent of the output. Each manufacturer agreed to sell all of his salt to the association, or pay 10¢ a barrel to the association for all that he sold to outsiders. There was no limitation on output. The association sold the salt and paid each manufacturer the average rate received.

The Weakness of the Pool.—Being in restraint of trade, the pooling contract cannot be enforced. There is a great temptation for each member of the pool to break the agreement. Often the pool took the form of limitation of output in order to prevent demoralization of prices. It was to the advantage of each individual producer that the total production be kept down, but that he himself should produce and sell at the higher price as much as possible. So, sometimes, the production actually increased after the agreement had been made to limit it. Thus, it is seen that the pool had both legal and economic weaknesses and so was not a satisfactory form of combination.

7. The Trust in the Legal Sense.—This device was the product of the fertile brains of the lawyers for the Standard Oil Company. It was started in 1879 and enlarged in 1882. The principle is simple. Properties, particularly stocks of corporations, are turned over to trustees in return for trustee certificates. The trustees have absolute control of the businesses. They may control output, price policies, and the division of the field. The earnings from all of the concerns are divided among the holders of the trustee certificates.

The trust in the legal sense was successful from the economic standpoint. The trustees had effective control, and the combination could not be broken by those who had turned over their stocks.

In 1890, the trust in the legal sense received a severe blow. In the case against the North River Sugar Refining Company (128 New York, 582), it was held that the corporations could not enter trusts. Corporations have no powers except those granted in their charter. The court held that the corporations joining the trust were giving up their independence and self-control and that they could not do this under their charters.

In 1892, the Ohio Supreme Court held the Standard Oil Trust void (49 Ohio, 137) on the same grounds, and also because the monopoly aimed at was against public policy.

8. The Holding Company.—After the trust, in the legal sense, came the holding company. We have seen that a corporation has only those powers which are granted in its charter. At first, the states would not permit the corporations which they chartered to hold or own the stocks of other corporations. However, New Jersey in 1889 and other states later, including New York in 1892, Delaware in 1899, and Maine in 1901, modified their laws and permitted one corporation to hold stock in another. This action opened the way for a very convenient form of combination. A company would be chartered solely for the purpose of owning stocks. A majority of the stocks of various competing companies could be acquired in the open market or by agreement from the owners. Then, directors of the companies could be put in who would follow the policies desired by the combination. The earnings of the holding company would be the dividends on the

stocks held, and these earnings could be distributed as dividends on the stock of the holding company.

The holding company has an advantage over the trust in the ease with which control of companies could be acquired or disposed of.

In the case of the Standard Oil Company, for a period after the trust form had been declared illegal, the combination was held together because a group of men owned a controlling interest in all of the companies. In 1899, to make the combination more secure, the Standard Oil Company of New Jersey, which was an operating company, increased its capital stock and became a holding company also.

9. The Merger or Amalgamation.—This is distinguished from the holding company in that it results in one big corporation. The constituent companies lose their separate existences. It is called a merger if one company absorbs the others; an amalgamation if a new company is formed from all of the others. An illustration is given below in the history of the American Tobacco Company.

10. The American Tobacco Company.—The history of this company may be taken to illustrate the growth of trusts. While it was not the largest combination, it gained a larger degree of monopoly than most of the other trusts. The American Tobacco Company was organized in 1890 by combining five leading manufacturers of cigarettes. Back of the capitalization of \$25,000,000 were assets of \$5,000,000. It soon became dominant in the cigarette field and secured over 90 per cent of the business of the country. This success was based partly on the control of the best cigarette-making machines.

Soon the company began to seek control of other branches of the business; namely, smoking-tobacco, snuff, plug-

tobacco, and cheroots. The main attention, at first, was given to plug-tobacco. The company developed new brands and, at times, sold them below cost to injure competitors. By this means, in 1897, they had gained control of about one-fifth of the plug-tobacco business. The loss was made up from the profits on their cigarette business.

The next step was the organization of the Continental Tobacco Company, which took over the plug-tobacco interests of the American Tobacco Company and united with them the leading competitors. The company was dominated by the American Tobacco Company, although they did not control a majority of the stock. It was capitalized at \$97,690,700.

About 1897 the character of the management changed. Most of the original cigarette men were not in sympathy with the effort to extend control over the whole field and so sold out their stock. They were replaced by a group of financiers. The snuff business was the next to be taken up. The companies absorbed by the American and Continental Companies had had some snuff business, and new snuff companies were acquired. In all, by 1900, they controlled about one-third of the field. A rival combination, called the Atlantic Snuff Company, gave vigorous competition. This competition was ended by the formation of the American Snuff Company, which combined the snuff business of the American and Continental Companies, the Atlantic Snuff Companies, and another important firm, the George W. Helme Company. This combination, in 1901, produced 80.2 per cent of the snuff of the country.

As an incident to these various combinations, the trust had obtained about 60 per cent of the output of smoking-tobacco. The experience with cigars was not so fortunate.

The difficulty lay in the technic of manufacture. Machinery has only limited application in making cigars. The small hand manufacturer could not easily be driven out of his local market. The American Cigar Company was started in 1901. It took over the cheroot and small cigar business of the American Tobacco Company and bought up cigar-manufacturing concerns. By vigorous advertising and promotion it controlled, in 1903, about one-sixth of the cigar output of the country.

The next step was financial. The Consolidated Tobacco Company was formed in 1901. It gave its bonds for the common stock of the American and Continental Companies. Besides providing new capital, this move gave the trust leaders control with a smaller investment and a chance to get the surplus profits of the business. One source of these surplus profits came, in 1901 and 1902, from the reduction of the taxes which had been levied during the Spanish-American War. The companies did not reduce their prices by the amount of the reduction of the taxes, so their profits increased greatly.

The trust had always done some foreign business. It had organized or acquired subsidiary companies in 1894 in Australia, in 1895 in Canada, in 1899 in Japan, and in 1901 in Germany. It also exported from this country and sold through agencies. In England, this business was not profitable. So the trust decided to manufacture in England, and bought Ogden's (Limited), which was an important tobacco-manufacturing concern. This move frightened the British manufacturers and so they formed, in 1901, a counter-combination called the Imperial Tobacco Company. In 1902, they acquired a firm which controlled a large number of retail stores to give them an outlet for their product.

The fight between the two combinations promised to be very bitter and expensive. The Imperial Tobacco Company made plans to invade the American field. The result, in 1902, was the sale of Ogden's to the Imperial Tobacco Company with the agreement that the American and British companies should each keep to its own field. The two companies also agreed to form the British-American Tobacco Company (Limited) to carry on the business outside of the United States and the United Kingdom.

In 1904, the rather complicated corporate structure which had grown up was simplified by a merger. The Consolidated, the American, and the Continental Companies were all merged into the new American Tobacco Company. The merger was accomplished by an exchange of securities. The reorganized company in 1904 had outstanding \$40,242,400 common stock; \$78,689,100 preferred stock; and \$136,360,600 of bonds. The common stock had the voting power, so the inner group could control the whole company with a comparatively small investment.

Many subsidiaries were controlled by the American Tobacco Company, the American Snuff Company, the American Cigar Company, and the British-American Tobacco Company. Besides those directly engaged in manufacturing tobacco, there were others which controlled the licorice business, made packages, made machinery; and also concerns engaged in wholesale and retail distribution of tobacco products.

The success of the company is seen in the percentages of the output of the various branches it had obtained in the United States by 1910, namely: cigarettes, 86.1 per cent; little cigars, 91.4 per cent; cigars, 14.4 per cent; plug-to-

bacco, 84.9 per cent; smoking-tobacco, 76.2 per cent; fine cut, 79.7 per cent; and snuff, 96.5 per cent.

The dissolution of the trust will be treated in the next chapter.

11. Exercises.—1. Why are not railroad combinations called trusts?

2. Try to calculate the percentage of the output of a given line which a company would need to have in order to make it a trust.

3. What is the difference between a trust and a trust company?

4. Explain the connection between the Industrial Revolution and the growth of trusts.

5. Why is competition fiercer between large-sized business units than between small-sized ones?

6. Why are unfair methods of competition effective?

7. Does competition inevitably lead to monopoly?

8. Why were the profits of the trust promoter large from 1898 to 1901? Why cannot the same large profits be made to-day?

9. Trace the connection between the tariff and the trusts.

10. Justify the statement that New Jersey, not the tariff, is the "mother of the trusts."

11. Explain how rebates on freight rates might promote the growth of trusts.

12. How are patents used by trusts?

13. Illustrate a case that would be reasonable restraint of trade under the common law.

14. If a watchmaker sold his business, would it be a reasonable restraint of trade for him to agree not to make watches anywhere in the world?

15. What usually caused the changes in the form of combination?

16. What is the economic weakness of the pool? Can any method of running the pool be devised which will correct this weakness?

17. What was the economic advantage of the trust in the legal sense? What was the legal difficulty?

18. Why has New Jersey been called a "traitor state"?

19. What are the advantages of the holding company?

20. Distinguish the merger from the amalgamation.

21. What features of the tobacco business make it an excellent field for a trust?

22. Why did the American Tobacco Company never gain as great a control over cigars as over other kinds of tobacco?

23. To what extent did the American Tobacco Company illustrate integration of industry?

CHAPTER XV

THE CONTROL OF TRUSTS

1. The First Attitude of the Public. 2. The Evils of the Trusts—Consumers—Employees—Investors—The State. 3. State Legislation. 4. The Difficulties of State Regulation. 5. The Sherman Anti-Trust Law. 6. Early Effect of the Sherman Law—Knight Case—Addyston Pipe Case. 7. The Later Decisions Under the Sherman Law—Standard Oil Case—American Tobacco Case—United States Steel Case. 8. The Seven Sisters Laws of New Jersey. 9. The Federal Trade Commission Act. 10. The Clayton Act. 11. The Federal Trade Commission. 12. Difficulties in Regulating Trusts. 13. Exercises.

1. The First Attitude of the Public.—It is hard for us to realize the terror which the trusts, in the early days, aroused in the minds of the public. The trusts, by their rapid growth, seemed destined to control the whole economic organization of the country. The idea of monopoly has always been repugnant to the American people. As a result of this terror, the people in blind fury decided to destroy the trusts.

2. The Evils of the Trusts.¹—Various interests are alleged to have been adversely affected by the trusts.

Consumers.—Here the main complaints are of higher prices, monopolistic practices, poor service, and wasteful methods of production.

Employees.—Labor-unions have opposed trusts because they were afraid that the power of the trusts would be used to crush the unions. Combining separate companies into a trust was worse than forming an employer's association. On the other side, some have argued that with big profits the trusts could pay higher wages.

¹ Cf. Haney, *Business Organization and Combination*, pp. 366 ff.

Investors.—Many of the early promotions were marked by excessive profits to promoters and underwriters. Investors were deceived as to the amount of assets back of the securities issued. Insiders often manipulated affairs in such a way as to divert the earnings to themselves. Minority stockholders were sometimes frozen out. Reckless financial policies have led to failure and reorganization in which investors suffered losses.

Competitors.—In the chapter on Unfair Competition, we have seen the great variety of ways in which competitors have been injured by the trusts.

The State.—Some trusts have been accused of political corruption. Some people fear that the power of the trusts will become so great that they will control the government.

3. State Legislation.—Many of the states acted before the federal government and attempted to control trusts. The Kansas law of 1889 may be taken as typical.¹

Section 1. That all arrangements, contracts, agreements, trusts or combinations between persons or corporations made with a view or which tend to prevent full and free competition in the importation, transportation or sale of articles imported into this state or in the product, manufacture or sale of articles of domestic growth or product of domestic raw material, or in the loan or use of money, or to fix attorneys' or doctors' fees, and all arrangements, contracts, agreements, trusts or combinations between persons or corporations designed or which tend to advance, reduce or control the price or the cost to the producer or to the consumer of any such products or articles, . . . are hereby declared to be against public policy, unlawful and void.

¹ Quoted in Stevens, *Industrial Combinations and Trusts*, pp. 45-46.

Penalties for violations were fines from \$100 to \$1,000, or imprisonment from thirty days to six months, or both.

About twenty states had passed similar legislation by 1894. The legislation aimed to destroy the trusts and insure free competition.

The present law in New York State is as follows (Laws of 1909, chapter 25, amended in 1918 by adding last paragraph):

Section 340. Contracts for monopoly illegal and void. Every contract, agreement, arrangement or combination whereby a monopoly in the manufacture, production or sale in this state of any article or commodity of common use is or may be created, established or maintained, or whereby competition in this state in the supply or price of any such article or commodity is or may be restrained or prevented, or whereby for the purpose of creating, establishing or maintaining a monopoly within this state of the manufacture, production or sale of any such article or commodity, the free pursuit in this state of any lawful business, trade or occupation is or may be restricted or prevented, is hereby declared to be against public policy illegal and void.

The provisions of this article shall not apply to co-operative associations, corporate or otherwise, of farmers, gardeners or dairymen, including live-stock farmers and fruit-growers, nor to contracts, agreements or arrangements made by such associations.

The penalty for violating the law is a fine of not over \$5,000, or imprisonment for not longer than one year, or both. For corporations, the penalty is a fine of not more than \$20,000.

Under this law, nineteen members of the Marble Indus-

try Employers' Association in December, 1921, were fined and sentenced to prison. The prison sentence was suspended.

4. The Difficulties of State Regulation.—On the whole, not much came from the efforts of the states to regulate trusts. We have seen in the preceding chapter that state judicial decisions forced the abandonment of the trust in the legal sense as a form of organization. However, the result was merely a change in the form of organization, not the break-up of the combination. States were hampered in their attempts to regulate by the fact that the trusts usually had charters from other states, and under the practice of comity among the states, could do business within the state. The trusts usually had better lawyers than the states. The later experiences of some of the states, such as Texas, show that with appropriate legislation and persistent legal attack, trusts can be driven from the state. There is a question whether driving out the trust is desirable, and also whether the trust will not come back in the guise of another corporation.

The chief difficulty with state regulation is that the trusts are national in scope. Even if a state does drive the trust out of its borders, it still exists in the other states. Uniform united action by all of the states can hardly be expected.

5. The Sherman Anti-Trust Law.—In 1890, Congress followed the lead of the states and passed a law against trusts.

Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal. Every person who

shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Section 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire to monopolize any part of the trade or commerce among the several states, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

6. Early Effect of the Sherman Law.—This drastic law had, for a long time, but little effect. Few cases were started and they were not successful. The first successful cases were the ones against railroad associations mentioned in the chapter on Railroad Regulation. There is grave doubt whether Congress intended the law to apply to railroads, as the Interstate Commerce Act of 1887 was supposed to regulate them.

It is a grim commentary on the effectiveness of the law, that the great period of trust formation, 1898 to 1901, came after this law was passed. Moody¹ says that there were in 1904 in the United States 318 important trusts with a capital of \$7,246,342,533. Of these, 236 trusts with a capital of \$6,049,618,223 had been started since January 1, 1898.

The Knight Case (156 U. S., 1).—This case was decided in 1895, and since then has seriously hampered the regula-

¹ Truth About the Trusts, p. 486.

tion of business by the federal government. The American Sugar Refining Company was a New Jersey corporation which had, by 1892, combined all of the sugar-refineries in the United States, except a small one in Boston and four refineries in Philadelphia. These four refineries competed with each other and, taken together, furnished about one-third of the sugar of the country. In 1892, they were purchased by the American Sugar Refining Company. Then they were sued under the Sherman law. The supreme court held that the combination of manufacturers of an article which went into interstate commerce was not restraint of interstate commerce. They made a sharp distinction between manufacture and commerce, which seems hard to justify.

The Addyston Pipe Case (175 U. S., 211).—In 1899, the Addyston Pipe and Steel Company was found to be in a combination in restraint of trade. Six companies making cast-iron pipe entered into an agreement which divided the country and fixed the price at which pipe was to be sold. The supreme court held that this agreement violated the Sherman law.

7. Later Decisions Under the Sherman Act.—In 1911, it was finally discovered that the Sherman Act really could be used effectively to break up trusts.

The Standard Oil Case (221 U. S., 1).—The Standard Oil Company of New Jersey, it will be remembered, became a holding company after the trust form of organization had been outlawed. Besides operating its own business, it held the stocks of the subsidiaries and controlled them. The supreme court held that the device of the holding company was, in this case, a combination in restraint of trade and an attempt to monopolize and so ordered its dissolution.

A point of interest in the case is the reading into the law of what is called the "rule of reason." Under the common law it was recognized that some combinations in restraint of trade might be reasonable. The wording of the Sherman Act seems to condemn all combinations. However, the supreme court held that the law condemned only unreasonable combinations, but that, in as much as that the Standard Oil Company was an unreasonable combination in restraint of trade, it must be dissolved.

The Dissolution of the Standard Oil Company.—The Standard Oil Company of New Jersey got rid of the stock which it held in thirty-three companies by dividing it pro rata among its stockholders. These companies were enjoined by the court from combining or in any way violating the Anti-Trust Act. Of course, the pro rata distribution of the stock did not alter the fact that just as a small group had dominated the Standard Oil Company of New Jersey, the same small group could dominate each of the thirty-three companies. The idea of the court was probably that as time went on, the ownership of the companies would change.

The American Tobacco Company Case (221 U. S., 181).—This case was also decided in 1911, shortly after the Standard Oil case. The "rule of reason" was again affirmed, but the Tobacco Company was held not to be a reasonable combination. The chief point of distinction between the Tobacco Company and the Oil Company was that the Tobacco Company was a merger. After the Northern Securities case had established the illegality of the holding as a device for bringing about combination, the new American Tobacco Company was formed from the old American Tobacco Company, the Consolidated Tobacco Company,

and the Continental Tobacco Company. This decision put an end to the hope that direct ownership by a giant corporation would bar prosecution as a combination.

The supreme court ordered the company to dissolve.

The Dissolution of the American Tobacco Company.—The essential feature of the dissolution from the manufacturing standpoint was the creation of three companies: the American Tobacco Company, the P. Lorillard Company, and the Liggett and Myers Tobacco Company. The different factories and brands for the various classes of tobacco were divided among these three companies in such a manner that no one company had the dominant position in any class of tobacco product. Some of the subsidiaries which were combinations were forced to split up. Including these subsidiaries, fourteen corporations were to be the result of the dissolution. All of these fourteen corporations were enjoined by the court from having common officers or directors or combining in any way.

The United States Steel Corporation Case (251 U. S., 417).—The United States Steel Company is the largest corporation in the world. It was formed in 1901 by combining many companies which were themselves combinations. It was attacked under the Sherman Act, but the supreme court held, in 1920, that the combination did not violate the law. The court held that mere size was not an offense nor the existence of unexerted power. They also said that the dissolution of the company might injure public interest.

8. The Seven Sisters Laws of New Jersey.—New Jersey gained ill repute by enacting a law, in 1889, permitting one company to hold stock in another company. This law made it possible to use the holding company as a means of combination. In 1913, under the leadership of Governor

Wilson, seven laws were passed which aimed to help to solve the trust problem. The provisions of the laws may be briefly indicated:

(1) Combinations are illegal if they restrict trade, acquire a monopoly, limit production, increase prices, set resale prices, agree to restrict competition. Those ordering the acts are guilty, and the charter of a corporation may be revoked.

(2) Discriminating prices are forbidden if they lead to monopoly, hinder competition, or restrict trade.

(3) Stock-watering is prohibited.

(4) It is a misdemeanor to organize a corporation to do fraudulent or unlawful things.

(5) Mergers are permitted.

(6) Holding companies to limit competition are prohibited.

(7) Mergers must have the approval of the Board of Public Utility Commissioners.

9. **The Federal Trade Commission Act.**—In 1914, Congress passed two laws for the regulation of trusts. The Federal Trade Commission Act, as its name implies, provides for a commission to regulate trusts. The law states that unfair methods of competition are unlawful. The commission is composed of five members appointed by the President with the consent of the Senate. It has wide powers of investigation either on its own initiative or on complaints brought by interested parties. The commission can require annual and special reports of the corporations subject to it. The commission reports to Congress and submits recommendations.

10. **The Clayton Act.**—This is the second of the laws to control trusts passed by Congress in 1914. Its similarity

to the New Jersey legislation is evident. It prohibits discriminating prices (where the variation is not due to quantity, quality, cost of selling, or transportation), "tying clauses," and holding companies whenever these practices tend substantially to lessen competition or create monopoly. It prohibits interlocking directorates between large banks and large corporations. It restricts buying by railroads from companies in which the railroad officers are interested.

The law also contained provisions about labor which do not concern us here.

II. The Federal Trade Commission.—In 1903, Congress established the Bureau of Corporations in the Department of Commerce and Labor. The Federal Trade Commission is an outgrowth of this bureau, but has vastly greater powers. To it is intrusted the duty of preventing unfair methods of competition, and we have spoken of its work in that connection in an earlier chapter.

The commission is given the duty of seeing that anti-trust decisions are carried out. On request of the attorney-general, it may suggest methods of readjusting businesses which are violating the anti-trust laws.

The commission has made many investigations. Among others, they have published reports on the grain trade including futures, meat-packing, private car-lines, book paper, news-print paper, flour milling and jobbing, beet-sugar, canned food, wholesale marketing of food, woollen-rag trade, sugar supply and prices, coal-fields, and farm implements. These reports provide a store of information on business organization and practices.

Some have thought that, in time, the Federal Trade Commission would exercise a control over business similar to that exercised by the Interstate Commerce Commission

over railroads. The latest extension of governmental control does not bear out this idea. For, when Congress in 1921 passed legislation concerning stock-yards and meat-packing, these industries were placed under the supervision of the secretary of agriculture. The secretary may call upon the Federal Trade Commission to make investigations.

12. Difficulties in Regulating Trusts.—The policy implicit in the Federal Trade Commission and Clayton Acts is that we do not need to fear trusts except when they use unfair practices. No one will question the desirability of getting rid of the unfair practices, but even with them gone, there still remain problems. One suggestion is that the Law of Public Callings be applied to trusts. They would then be required to serve all who come, with adequate facilities, at reasonable rates, and with no discrimination. Regulation to force them to do these things would be extremely difficult. It would involve governmental control of prices. To make this control effective, the government would be forced to make valuations of the capital employed and to keep continuous cost records to see that reasonable prices were being charged. Some public utilities are satisfactorily regulated on that basis, but their case is simpler because they ordinarily sell only a single service. If the prices of the packers should be regulated, think of the complexity involved in the numerous main products and the multitude of by-products.

13. Exercises.—1. Why are we less afraid of trusts than our forefathers?

2. Argue that trusts are a benefit to consumers.

3. What is the attitude of the United States Steel Corporation to its employees? Is this attitude typical of all trusts?

4. Is the injury to investors limited to trusts, or is it a general corporation problem?

5. What are the dangers to the state in the growth of gigantic trusts? What is the complaint of the miners against the coal companies in West Virginia?

6. What was the aim of the state anti-trust legislation?

7. What is the weakness of the state anti-trust legislation?

8. What is the difference between a combination in restraint of trade and an attempt to monopolize?

9. Why did not the Sherman Anti-Trust law prevent the formation of trusts?

10. From an economic standpoint, what is the weakness in the reasoning of the Knight case?

11. How does the Addyston case differ from the Knight case?

12. What is the "rule of reason"? How can it be harmonized with the language of the Sherman Act?

13. Explain and criticise the plan for the dissolution of the Standard Oil Company.

14. What effect did the dissolution have on the price of the stock of the Standard Oil Company?

15. In what ways was the dissolution plan for the American Tobacco Company superior to the plan for the Standard Oil Company?

16. Were consumers benefited by these two dissolutions?

17. How did the Steel Corporation differ from the Oil Company and the Tobacco Company?

18. What theory of trust regulation is back of the Seven Sisters laws of New Jersey?

19. Outline the variations in prices which are justifiable.

20. Under what conditions is the public benefited by mergers?

21. (a) What are the powers of the Federal Trade Commission?

(b) How do they compare with the powers of the Interstate Commerce Commission and the Federal Reserve Board?

22. What is the aim of the Clayton Act?
23. List the activities of the Federal Trade Commission.
24. Outline a plan for regulating, by public authority, the prices of the products of the American Woollen Company.

CHAPTER XVI

FOREIGN TRADE AND FOREIGN EXCHANGE

1. The International Division of Labor. 2. Trade Based on Natural Differences. 3. Trade Based on Differences in Economic Development. 4. Trade Based on Specialization. 5. The Meaning of Foreign Exchange. 6. The Demand for and Supply of Foreign Exchange. 7. Mint Pars and Gold Points. 8. The Balance of International Payments. 9. The Correctives of the Exchanges. 10. Arbitrage. 11. Exchange Rates with Countries on a Paper Standard. 12. Exchange Rates with Countries with a Silver Standard. 13. The Gold-Exchange Standard. 14. The Regulation of Gold Movements. 15. The Effect of the War on the Exchanges. 16. Dollar Exchange—Bankers' Acceptances. 17. Exercises.

1. The International Division of Labor.—Foreign trade differs in some superficial ways from domestic trade. It crosses a political boundary. Often two monetary systems are involved. The distance involved is frequently greater than that involved in domestic trade. In many cases the government interferes for purposes of regulation or for revenue. In spite of these surface differences, foreign trade is fundamentally the same as domestic trade. The common view often attempts to make a difference between the two parts of the trade, holding that it is profitable to sell to foreigners but disastrous to buy from them. Historically, this was the attitude of the mercantile system. Its advocates hoped by this policy of selling more than they bought to bring supplies of the precious metals into their country.

Foreign trade does differ from domestic trade in one important particular. Within a country, we expect in the long run a fairly close correspondence between the wage

rates and profit rates in the different sections. We expect this because any great difference would cause a movement of labor and capital from the low return to the high return districts. Between countries, we find a movement of emigrants and of capital, but the movement is more or less impeded. To the inertia which comes from family ties and community association is added the disinclination to leave one's fatherland. Those with capital to invest, feel that it is safer at home than abroad, where it will be under a different set of laws and perhaps dependent for its security on courts which are not friendly to foreigners.

The result of foreign trade is international division of labor. Just as division of labor among workers permits an individual to specialize on the work for which he is best adapted, so international division of labor permits a country to specialize in the things which it is best fitted to produce. The fitness may be the result of natural resources, of the stage in industrial development, or of a mere accident of an early start.

2. Trade Based on Natural Differences.—The most striking cases of this sort are those of mineral deposits. South Africa has gold deposits and diamond-mines. For gold and diamonds they get all of the things they need from other countries. Another illustration is the trade between the tropics and the temperate countries. The differences in climate result in differences in product. The tropics exchange fruits, rubber, coffee, spices, etc., for machinery, textiles, etc., from the temperate countries. This type of trade has an element of permanence, for these natural differences will persist.

3. Trade Based on Differences in Economic Development.—Some countries have gone further in the develop-

ment of manufactures than others. Historically, England had her Industrial revolution long before the other countries. In the case of the United States, for a long time we were an agricultural people. When a country is first opened up for settlement, agriculture is usually the most profitable pursuit for the people. Land is the long factor and labor the short factor. Later, with the growth of population, the time may come when it will pay to manufacture; but for a considerable time manufactured goods can be obtained with less effort by raising agricultural products and trading them with some nation which has developed manufactures. England became a country which specialized in manufactures, trading them for food and raw materials with countries industrially less developed.

This type of trade is less permanent than that based on natural differences. Thus, the United States has become a great manufacturing nation and no longer exports any great proportion of the food raised.

4. Trade Based on Specialization.—Trade may exist between two countries with about the same natural resources and about the same stage of industrial development. It is profitable to specialize to get the advantages of large-scale production and to develop special skill. Frequently, no particular reason can be given to explain why one line of industry was developed rather than another. It is this type of trade which causes the seeming anomaly of Great Britain exporting woollens to Germany and also importing woollens from Germany. Each has specialized in some type of woollen manufacture.

5. The Meaning of Foreign Exchange.—The trade between countries which arises from any of the reasons given above brings certain problems in connection with the pay-

ment. Frequently, the monetary systems of the countries are different. The payments must be made at a distance. Many of the transactions are credit transactions; that is, they involve a period of waiting before the payments are made. In the study of foreign exchange we deal with the mechanism by which payments are made in international trade.

Most people are familiar with the idea of domestic exchange. When payments are to be made at a distance within the country, drafts on New York City are frequently used instead of using the ordinary bank check. In like manner, when payments are to be made between countries, drafts on banks or merchants are used in making the payments. These drafts, of course, are orders to pay money. They differ from the domestic drafts because there are two monetary systems involved. Thus, a merchant in the United States who wishes to make a payment in London may buy a draft in pounds sterling and pay for it in dollars.

We may begin our study of foreign exchange by seeing what the financial page of the newspapers gives about it.

FRIDAY, MARCH 4, 1921

RANGE OF RATES, SIGHT EXCHANGE

	High.	Low.	Final.	Thurs. Final.
LONDON.....	\$3.90 $\frac{3}{4}$	\$3.89 $\frac{1}{2}$	\$3.89 $\frac{1}{2}$	\$3.89 $\frac{3}{4}$
PARIS.....	7.24 $\frac{1}{4}$	7.18	7.19	7.19
ROME.....	3.68	3.68	3.68	3.66
AMSTERDAM...	34.35	34.35	34.35	34.23
BERLIN.....	1.63 $\frac{1}{2}$	1.60	1.62 $\frac{1}{2}$	1.61 $\frac{1}{2}$
MADRID.....	13.94	13.94	13.94	13.96

CLOSING RATES

Parity of exchange is given as reported by the U. S. Mint, except in countries with a silver standard, where parity fluctuates with the price of silver.

EUROPE			
	Friday.	Week Ago.	Year Ago.
STERLING—Par \$4.86 $\frac{3}{8}$ per sovereign.			
Demand.....	3.89 $\frac{1}{2}$	3.86 $\frac{1}{2}$	3.65
Cables.....	3.90 $\frac{1}{4}$	3.87 $\frac{1}{4}$	3.65 $\frac{3}{4}$
Com., 60 days.....	3.84 $\frac{1}{4}$	3.82 $\frac{1}{2}$	3.60
Com., 90 days.....	3.82	3.80 $\frac{1}{2}$	3.58
FRANCE—Par 19.3 cents per franc.			
Demand.....	7.19	7.18	7.29
Cables.....	7.20	7.18 $\frac{3}{4}$	7.30
ITALY—Par 19.3 cents per lira.			
Demand.....	3.68	3.64 $\frac{1}{2}$	5.60
Cables.....	3.69	3.65 $\frac{1}{2}$	5.61
BELGIUM—Par 19.3 cents per franc.			
Demand.....	7.52	7.51	7.60
Cables.....	7.53	7.52	7.61
GERMANY—Par 23.8 cents per mark.			
Demand.....	1.62 $\frac{1}{2}$	1.60 $\frac{1}{2}$	1.05
Cables.....	1.63	1.61 $\frac{1}{2}$	1.07
AUSTRIA—Par 20.3 cents per crown.			
Demand.....	.22	.23	.42
Cables.....	.22 $\frac{1}{2}$	.23 $\frac{1}{2}$	.44
CZECHOSLOVAKIA—Par 20.3 cents per crown.			
Demand.....	1.32	1.25	1.14
Cables.....	1.33	1.27	1.19
DENMARK—Par 26.8 cents per krone.			
Demand.....	17.30	18.05	16.10
Cables.....	17.35	18.10	16.25
FINLAND—Par 19.3 cents per finmark.			
Demand.....	2.85	3.10	4.55
Cables.....	2.90	3.15	4.60
GREECE—Par 19.3 cents per drachma.			
Demand.....	7.48	7.45	11.05
Cables.....	7.53	7.50	11.10
HOLLAND—Par 40.2 cents per florin.			
Demand.....	34.35	34.13	37.375
Cables.....	34.40	34.18	37.50
HUNGARY—Par 20.3 cents per crown.			
Demand.....	.26	.20 $\frac{1}{2}$	..
Cables.....	.26 $\frac{1}{2}$	.21	..
JUGOSLAVIA—Par 20.3 cents per crown.			
Demand.....	.72	.70	.71
Cables.....	.73	.71	.73

	Friday.	Week Ago.	Year Ago.
NORWAY—Par 26.8 cents per krone.			
Demand.....	16.35	17.25	17.85
Cables.....	16.40	17.30	18.00
POLAND—Par 23.8 cents per mark.			
Demand.....	.13	.13¼	.64
Cables.....	.13½	.13½	.67
RUMANIA—Par 19.3 cents per leu.			
Demand.....	1.40	1.36	1.52
Cables.....	1.41	1.38	1.57
SERBIA, Belgrade—Par 19.3 cents per franc.			
Demand.....	2.80	2.78	3.30
Cables.....	2.85	2.80	3.35
SPAIN—Par 19.3 cents per peseta.			
Demand.....	13.94	13.90	17.90
Cables.....	13.96	13.92	18.00
SWEDEN—Par 26.8 cents per krone.			
Demand.....	22.35	22.32	19.45
Cables.....	22.40	22.38	19.50
SWITZERLAND—Par 19.3 cents per franc.			
Demand.....	16.70	16.56	17.09
Cables.....	16.75	16.58	17.16

FAR EAST

CHINA—Cents per silver dollar for Hongkong; per tael for Shanghai and Peking.

Hongkong, demand.....	45.50	48.50	101.00
Hongkong, cables.....	45.60	48.60	101.10
Peking, demand.....	65.00	70.50	164.00
Shanghai, demand.....	59.50	65.00	152.00
Shanghai, cables.....	60.00	65.50	52.50

INDIA—Calcutta, cents per rupee, stabilized at one-tenth of a pound sterling.

Demand.....	27.25	27.00	46.50
Cables.....	27.50	27.50	47.00

PHILIPPINE ISLANDS—Manila: par 50 cents per silver peso.

Demand.....	47.75	47.75	49.125
Cables.....	48.00	48.00	49.375

JAVA—Par 40.2 cents per florin.

Demand.....	35.50	34.50
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JAPAN—Par 49.8 cents per yen.

Demand.....	48.375	48.50	47.125
Cables.....	48.50	48.75	47.375

SOUTH AMERICA

	Friday,	Week Ago.	Year Ago.
ARGENTINA—Par 42.44 cents per Argentine paper dollar.			
Demand.....	34.75	35.06	43.65
Cables.....	35.00	35.18	43.75
BRAZIL—Par 32.45 cents per paper milreis.			
Demand.....	15.875	15.625	26.125
Cables.....	16.00	15.75	26.25

CANADA

MONTREAL—Par 100 cents per Canadian dollar.			
Demand.....	87.7	87.7	87.5

RUSSIAN CURRENCY

Prices for pre-revolution Russian ruble notes were as follows, par 51.40 cents per ruble:

	Bid.	Asked.
100 ruble notes, per ruble.....	.45	.50
500 ruble notes, per ruble.....	.42½	.44

The first thing we notice is that we have prices quoted. We are interested, of course, in knowing why those prices are what they are.

6. The Demand for and Supply of Foreign Exchange.—

If we take the case of sterling exchange, we say its price depends on the demand for drafts on London and the supply of drafts on London. The demand for drafts on London comes from those people who have obligations to meet in London. These obligations may arise in several ways.

First, of course, come importers in the United States who have purchased goods in London. Then, payments by the United States Government for the expenses of its embassies, consulates, and other foreign representatives necessitate the purchase of sterling exchange. Before the war, most of our foreign shipping was carried in British ships and was insured in British insurance companies. These transactions gave rise to a considerable demand for sterling ex-

change. Whenever an American tourist goes to Europe, he must provide himself with funds which will be available in Europe. Perhaps the commonest way of doing that is to buy sterling exchange, which can be turned into English currency or the currency of any other country. Another important group of transactions which gives rise to a demand for foreign exchange may be called investment transactions. If American investors make loans to the governments or the businesses of foreign countries, there is a demand for foreign exchange.

The supply of foreign exchange comes from those people who have credits abroad. As in the case of the demand for exchange, the merchandise transactions are of first importance. Here, of course, it is the exporter who has the supply of exchange abroad. If we develop our merchant marine and the business of marine insurance to such an extent that we carry goods for other countries, then we will have a supply of foreign exchange from that source. The indebtedness of the foreign countries to the United States furnishes a potential supply of foreign exchange. It is not actual so long as the foreign governments are not paying the interest on the indebtedness and are not making repayments of the principal. Financial transactions also affect the supply of foreign exchange. If we take the situation of the United States in early times when we were a debtor nation and European countries were lending vast sums to develop our railroads and other industries, we see that the first effect was to furnish a supply of foreign exchange. That is, if the Pennsylvania Railroad borrowed money in London, it had a credit in London against which it could draw bills of exchange and sell them in the New York market. Of course, as soon as the Pennsylvania

Railroad had to meet interest on its obligations, it appears as a demander for foreign exchange, and when it must pay the obligations at maturity it must buy foreign exchange covering the amount of the indebtedness. This relationship is probably now reversed. We are lending to Europe, and thus a demand for foreign exchange is created; and when repayments are made, a supply of foreign exchange will be created.

It will be noticed that various types of exchange are quoted. Demand exchange means a bill on a bank in a foreign country payable on demand. That is, payable as soon as it reaches the foreign country. Cables represent transactions carried on by cable, and so, of course, they are available immediately. The slight difference in price between demand and cables is explained by the fact that the demand exchange is available only after the voyage across the Atlantic, which may take about a week; while the cables are available at once. In the case of England, commercial bills are also quoted. Commercial bills are bills drawn, not on banks, but on business houses. They ordinarily are lower in price than the bankers' bills because the credit of the business man is not quite so high as that of the bank. Commercial bills also frequently are time bills. That is, payable at the end of sixty or ninety days. In this case, the price is lower than demand bills because of the sixty or ninety days which must elapse before payment can be obtained.

7. Mint Pars and Gold Points.—In each case, above the quotation is given a figure for the par. The mint par of exchange is a comparison of the pure-gold contents of the monetary units of the two countries. Thus, the mint par between the United States and Great Britain which appears

as sterling exchange in the table, is given as \$4.865 $\frac{5}{8}$ per sovereign. This is obtained by comparing the pure-gold content of an English sovereign, which is slightly more than 113 grains, with the pure-gold content of the United States dollar, which is 23.22 grains; 113 divided by 23.22 equals 4.865 $\frac{5}{8}$. The mint par with silver countries is the value in terms of our monetary unit of the pure silver in the coin. So long as the monetary units in gold-standard countries remain the same, the mint pars between the countries will be the same. The mint pars between gold-standard and silver-standard countries change with every change in the price of silver. Obviously, there can be no mint par between a gold-standard country and a country on a paper basis. Frequently, however, the law of the country sets a value on the paper in terms of gold. From this value is computed the par of exchange. Argentina is a case of this sort.

The ordinary statement about the price of exchange is that it varies about the mint par of exchange within the limits which are distant from the mint par an amount which covers the cost of shipping the unit value of gold. These limits are called the gold points, or the specie points. The explanation given of this limitation is that no buyer of exchange would pay more for exchange than the amount which it would cost him to ship gold, and no seller of exchange would take less for his bill than the cost of getting the gold from the foreign country. This cost used to be stated as about 2¢ a pound sterling in the case of sterling exchange.

One of the disruptions of the ordinary procedure in financial transactions caused by the war was the stoppage of the free movement of gold between countries. In all

of the European countries at the present time there are hindrances to the movement of gold. This does not mean that there are no gold movements permitted, but simply that the government through their treasuries insists on controlling the movement. A casual glance at the table shows that this limitation of gold movements makes the old statement about gold points a matter of historical rather than present interest.

8. The Balance of International Payments.—In a previous section, we enumerated some of the various transactions which give rise to the supply of or the demand for exchange. Various attempts are made to express the items for a country for a given period in the form of a balance-sheet. We give two such attempts, one before the war and one after the war.

BALANCE OF INTERNATIONAL PAYMENTS, 1908-1909¹

Items causing a supply of exchange:

Merchandise exports.....	\$1,663,000,000
Excess of gold exports over imports.....	48,000,000
Excess of silver exports over imports.....	12,000,000
Foreign investments in United States.....	184,000,000
	<hr/>
	\$1,907,000,000

Items causing a demand for exchange:

Merchandise imports.....	\$1,312,000,000
Interest paid to foreigners.....	250,000,000
Tourist expenditures.....	170,000,000
Remittance to friends abroad.....	150,000,000
Freight paid to foreigners.....	25,000,000
	<hr/>
	\$1,907,000,000

¹ Adapted from George Paish, Trade Balance of U. S. (National Mon. Comm.), p. 179.

BALANCE OF INTERNATIONAL PAYMENTS
JANUARY 1, 1919, TO NOVEMBER 1, 1920¹

(In millions of dollars)

Items causing a supply of exchange:

Exports of merchandise and silver.....	\$15,098
Exports of gold.....	653
Foreign loans matured and paid off.....	1,086
Freights due to United States and proceeds from sale of ships	1,011
Interest payments from allied governments.....	177
Interest payments on private American capital abroad.....	311
	<hr/>
	\$18,336

Items causing a demand for exchange:

Imports of merchandise and silver.....	\$8,765
Imports of gold.....	393
New issues of foreign government loans.....	771
Foreign corporate bond issues.....	126
American securities returned.....	200
American purchases of European internal securities.....	155
Other foreign private investment.....	500
Government cash advances to foreign governments.....	2,131
United States Government purchases of European currencies to cover expenditures in Europe.....	559
Relief.....	84
Interest payments on foreign capital in the United States....	100
Freight payments to foreigners.....	890
Credits granted by United States Grain Corporation.....	60
Immigrants' remittances.....	600
Tourists' expenditures.....	150
Floating indebtedness due to United States.....	2,852
	<hr/>
	\$18,336

The rates on a country will be high or low according to whether the balance of international payments as a whole shows an excess of exports or an excess of imports. Thus,

¹ J. W. Williams, *The Foreign Trade Balance of the U. S. since the Armistice*, Amer. Econ. Rev. Suppl., March, 1921, p. 30.

the rates on the United States in all other countries are high, partly because of the high excess of exports (the depreciation of the foreign currencies also enters in). This is the same thing as saying that in the United States the exchange on the other countries is low in price.

9. The Correctives of the Exchanges.—We have seen that in times when gold is permitted to move freely between nations, the price of exchange varies within the limits of the gold points. Gold moves if the balance of international payments is against one country. We shall now see why a country cannot continue to lose gold and another country gain gold indefinitely. The movement of gold sets in motion certain forces which tend to counteract the flow. The gold shipped out ordinarily comes from the bank reserves of the country; from the central bank if the country has one. The loss of reserves tends to stiffen money rates in the country which lost the gold and to ease the money rates in the country which received the gold. (To simplify the explanation, we assume that only two countries are involved.) The changes in the relative interest rates may cause international bankers to shift their balances to the country with the high discount rates. This increases the demand for exchange on the country which lost the gold and may be enough to stop the flow. The stiffness of money rates would have a tendency to check speculation and to cause a decline in the prices of stocks and speculative commodities, such as wheat and cotton. The easy money rates in the other country would have the opposite effect. Thus, foreigners would buy stocks and commodities in the country that lost the gold. This buying would cause a demand for exchange which would raise its price and perhaps stop the flow of gold.

The high exchange rates in the country which lost the gold on other countries would have some effect on the export and import of merchandise. Exports would be somewhat facilitated, for the exchange on the other countries received for the goods would bring more of the home country's currency than before. Imports would be somewhat checked because the exchange on the other countries which must be purchased to pay for the goods would cost more of the home country's currency than before. This again would tend to stop the flow of gold. Finally, if long continued, the loss of gold would tend to lower the general price level in the one country, and the gain of gold would tend to raise the general price level in the other country. This change in relative prices would tend to increase the exports of the country with the lower-price level and decrease the exports of the country with the higher-price level. This change in the movement of trade would tend to shift the balance of international payments and check the outflow of gold.

Of course, the operation of the correctives of the exchanges is interfered with by the regulations which prevent the free movement of gold.

10. Arbitrage.—In ordinary times, when the movement of funds is free, the exchange rates are kept in harmony with each other by the activities of a group of dealers in exchange called arbitragers. The manner in which they carry on their dealings is very technical, but a simple illustration in general terms will show how they make their profit and the effect of their operations. Suppose that the United States in its total trade has a favorable balance, that France has an unfavorable balance, but that in the particular trade with France the United States has an unfavorable balance.

That would tend to make, in the United States, exchange low on all of the countries except France, whose exchange would be high. Or to put it the other way, exchange on the United States would be low in France but high in all of the other countries. The exchange dealers would say that the rates were out of line, and so there would be a chance to make a profit by arbitraging. The operation might consist in buying dollars (New York exchange) in Paris with francs (Paris exchange) purchased in London with sterling (London exchange) and selling the dollars in New York for sterling with which to cover the sterling used in the purchase of the francs. This would yield a profit at first. But soon it would raise the price of dollars in Paris and lower the price of francs in New York. When the rates were in line, no profit could be made.

11. Exchange Rates with Countries on a Paper Standard.

—In Turner's Introduction, in the chapter on Money, we have seen that irredeemable government paper money usually depreciates in value. One of the ways in which this depreciation is measured is the depreciation of the exchanges. That is, instead of being worth \$4.86 $\frac{5}{8}$, the English pound sterling in New York on the day quoted was worth only \$3.89 $\frac{1}{2}$. Part of the variation from normal, of course, might be due to variations in demand for supply of exchange, but most of it is due to the fact that England is really on a paper basis.

Exchange rates with countries on a paper basis are subject to wide fluctuations. Anything which affects the amount of depreciation of the paper money will affect the price of exchange. In Germany, repeated issues of paper marks have lowered the value of the mark. This shows itself in a low price of German exchange in other countries,

and a high price of exchange on other countries in Germany. If France should balance her budget, the value of the franc would rise and with it the price of exchange on Paris in New York.

12. Exchange Rates with Countries with a Silver Standard.—Silver is the commonest money in the Orient. The range of prices is so low that gold could not be used in ordinary transactions. As was explained above, there is no stable mint par. The price of exchange varies with changes in the demand for and supply of exchange and with the changes in the gold price of silver. During and since the war silver has varied greatly in price, from 52¢ to \$1.37 an ounce. Such rapid variation introduces great uncertainty into dealings with such countries.

13. The Gold-Exchange Standard.—The exchange on the Philippine Islands is an illustration of the situation which arises under what is called the gold-exchange standard. The theory of this standard is that the circulation within the country shall be made up of overvalued silver coins; and that these coins shall be kept at a certain par with the money of the gold-using country by an arrangement whereby at any time the silver may be used to purchase exchange on the gold-standard country at a certain fixed price; and also, that at any time exchange on the gold-standard country may be turned into silver coins at the prescribed ratio. The quotation as given above for the Philippine Islands represents a breakdown of this system. Adequate funds were not carried, and so there came a time when exchange could not be purchased at the fixed ratio. The fact that the quotation is below par in New York means that in the Philippines it is above par. That is, it takes more silver pesos (Philippine money) to get a

dollar than was contemplated when the system was started.

14. The Regulation of Gold Movements.—We have seen above in considering the correctives of the exchanges, that there is a more or less automatic regulation of the movement of gold which occurs over long periods as the result of changes in interest rates and price levels. In this section, we wish to consider the more artificial short-time regulations used to prevent an outflow of gold. These measures are ordinarily undertaken by the central banks of the various countries. We are now referring to the time before the war.

Since gold is the basis of the banking and credit systems of the leading commercial nations, a sudden withdrawal of a considerable quantity of gold might force rapid contraction and possibly bring on a panic. The Bank of England used to save out the sovereigns, which were light weight but not too light to be current. If they wished to discourage the export of gold they would pay out these to the would-be exporter of gold. Since the gold is taken by weight in international shipments, the shortness in weight might be enough to cause it to be unprofitable to export the gold.

However, the chief method used by the Bank of England to prevent the export of gold was to raise the discount rate. This attracted funds to London for investment and so changed the balance of international payments.

The Bank of France under the law might redeem its notes in silver as well as gold. If it wished to prevent the export of gold it would pay out silver, or charge a premium for gold.

Another method used on the Continent was to hold in

the portfolio of the bank a considerable quantity of bills on London, renewing them as they came due. If the exchanges became adverse, they could often be corrected by throwing these bills on the market.

15. The Effect of the War on the Exchanges.—The war caused profound changes in the course of trade and brought intergovernmental credit transactions of unprecedented magnitude. The governments interfered more than ever before with economic and financial matters. One of the early steps taken in most countries was to take control of the gold within the country. No gold could ordinarily be exported except on government account. Most of the countries stopped the redemption of their paper money and entered on a policy of inflation. The result is seen in the variation from par of the exchanges of the various countries.

16. Dollar Exchange.—Before the war, sterling exchange was the chief instrument used in settling international obligations. Its primacy depended upon several circumstances. British trade was world-wide. That meant that people all over the world who bought British goods had obligations to meet in London. This furnished such a demand for sterling exchange that those who sold goods to the British were willing to take sterling exchange in payment. A second consideration was that Great Britain early adopted the gold standard and managed its monetary and banking affairs with such prudence that sterling exchange was always the equivalent of gold. Again, Great Britain was a wealthy nation with capital seeking investment abroad, so London bankers financed much of the commerce of the world. That meant that the London discount market would absorb the sterling bills drawn against the

shipment of commodities, also that foreign loans could be floated in London.

We see then the conditions under which dollar exchange might supplant sterling exchange and New York take from London the financial leadership of the world.

New York is a free gold market and London is not. The United States is the wealthiest country of the world. We are making some foreign investments, but our people are not used to foreign securities and will not buy them freely. Neither have we developed such a wide-spread world trade as Great Britain has. Dollar exchange will probably keep the supremacy so long as we are the only free gold market, and after that it will be a question of how rapidly our trade develops and how extensively we are willing to engage in foreign financing.

Besides the sentimental reason for wishing to have our monetary unit used in world trade, there are other advantages. The use of dollar exchange throws on the foreigner the risk of exchange. Suppose an American sells cotton to some one in Liverpool on three months' time. If the transaction is carried on in terms of sterling, the amount the American receives depends on the price which he can get for his sterling in three months (of course, he may discount his bill, but that merely shifts the risk to some one else). On the other hand, if the transaction is carried on in dollars, the American knows exactly what he will receive but the man in Liverpool will not know how many pounds sterling it will take to meet his bill until the time of payment. Obviously, it would be to our advantage to get rid of the risk of exchange.

The second advantage of the extended use of dollar exchange would be that our bankers, instead of the London

bankers, would make a profit on the numerous financial transactions.

Bankers' Acceptances.—These arise under commercial letters of credit. Let us suppose that a New York firm wishes to buy olive-oil from a firm in Italy to which it is not known. It would get from a well-known New York bank a letter of credit which would authorize the Italian dealer to draw, say, a ninety-day draft on the New York bank upon the shipment of the olive-oil and would agree to accept the draft. With this assurance, the Italian dealer would ship the oil and get a bill of lading. He would draw his draft on the New York bank and attach the bill of lading and other documents to it. He would sell the draft to his bank and thus get the money for his oil. The Italian bank would send the draft to its New York correspondent to get the acceptance of the New York bank. Then the draft might be held to maturity or discounted in order to get the proceeds at once. When the draft is accepted, the accepting bank gets the bill of lading. It may allow the importer to get the goods under a trust receipt or some other legal device. When the draft comes due, the money to pay it is provided, of course, by the importer, not the accepting bank.

Before the war, most of the letters of credit were drawn on London banks. The American importer was forced to get his bank to arrange with its London correspondent for the letter of credit. Of course, the London bankers charged for their services.

Now we hope that American bankers will issue the commercial letters of credit both for our own traders and those of other countries.

Bankers' acceptances may also be used to finance exports.

17. Exercises.—1. What are the advantages of international division of labor?

2. How may our desire to develop productive capacity influence our attitude toward international division of labor?

3. Give other illustrations of the three kinds of trade.

4. How does foreign trade differ from domestic trade?

5. How much permanence may we expect from each of the three kinds of trade?

6. How does foreign exchange differ from domestic exchange?

7. List the various items in the demand for and supply of foreign exchange.

8. How would the price of sterling exchange in New York be affected by:

(a) An increase in the exports of Great Britain?

(b) An increase in the imports of Great Britain?

(c) The fall of the Bolshevik government in Russia?

(d) The retirement of the English treasury notes?

(e) The prompt payment of the German indemnity?

(f) A long-continued coal strike in Great Britain?

(g) A capital levy in Great Britain?

(h) General crop failures in Europe?

(i) Rapid recovery of industry in Europe?

9. Explain how the mint pars are computed.

10. Why does there not seem to be much significance to the gold points at the present time?

11. What bad effects on trade does the rapid fluctuation of exchange rates bring?

12. Which is more important, to have stability of exchange rates or to bring the rates back to par? Can both things be done at the same time?

13. What is meant by purchasing-power parities?

14. Explain the effect of depreciated exchanges on the trade of a country.

15. Trace the effect of the payment of an indemnity by Germany on German exchange rates, trade balances, and productive capacity.

16. What is the profit in arbitrage?

17. What good effect does arbitrage have on exchange rates?

18. List the correctives of the exchanges in the order in which they operate.

19. List the added factors which enter into the determination of the exchange rates of a country on a paper basis.

20. Give some account of the silver exchanges during the war and the reasons for the broad movements.

21. How does the gold-exchange standard seek to stabilize the exchange rates on silver-using countries?

22. What caused the breakdown of the gold-exchange standard in the Philippine Islands?

23. Explain how central banks aim to control gold movements.

24. How permanent can the effect of such measures be?

25. What difficulties will the Federal Reserve Board face in attempting to control gold movements? What advantages will it have?

26. What has caused the growth in the use of dollar exchange?

27. What advantage would it be to traders in the United States if dollar exchange became widely used?

28. What interest has New York City in the spread of the use of dollar exchange?

29. Will dollar exchange supplant sterling exchange in the world's trade?

CHAPTER XVII

TARIFFS AND FOREIGN TRADE POLICIES

1. What Is a Tariff? 2. Technical Terms of a Tariff. 3. The Effect of a Tariff on Imports. 4. Revenue Tariffs. 5. Protective Tariffs. 6. Free Trade *vs.* Protection. 7. The Course of a Tariff Bill in the United States. 8. The Political Evils of a Tariff. 9. The History of the Tariff in the United States, Illustrating the Arguments Used—Infant Industry in the General Form—War—Home Market—Export Tax—Unconstitutionality—Wages—Infant Industry in Particular Form—High Cost of Living. 10. The Tariff Commission. 11. The Present Discussion. 12. The Problem of Dumping. 13. The Tariff and the Debts Owed Us by Europe. 14. Discriminations and Unfair Competition in Foreign Trade. 15. Reciprocity Treaties. 16. Colonial Preference. 17. The Open Door. 18. Exercises.

1. What Is a Tariff?—Tariffs or duties are taxes levied on goods which move in international trade. They may be levied on the import or the export of the commodities. Usually a country with little industrial development but with valuable natural resources will levy export duties. Thus, Mexico and Chile have raised revenue with this type of duty. Most of the duties, however, are levied on the import of the goods into the country. Indeed, the United States Constitution prohibits the levying of export duties.

2. Technical Terms of a Tariff.—A *specific duty* is one levied as so much per physical unit; as so much per dozen, per pound, per yard, or per quart.

An *ad valorem duty* is levied as so much of the value, as 25 per cent of the value.

A *tariff schedule* is a grouping of rates on related articles. In recent tariff bills in the United States, Schedule A has been Chemicals; Schedule K, Wool and Woollens.

A *mixed duty* combines specific and the ad valorem duties on one article.

A *compensating duty* is that added to the duty on a manufactured article to make up for the duty levied on the raw material used in the manufactures.

A *revenue duty* is one levied primarily for the purpose of raising revenue.

A *protective duty* is one levied primarily for the purpose of shielding the domestic producer from the competition of foreign producers.

3. Effect of the Tariff on Imports.—The effect of a tariff duty on the price of the article depends on a variety of circumstances: such as, whether the article is produced within the country or not; if it is produced, whether the production is great enough to supply the domestic demand; whether the country is the chief market of the foreign producer or not; and whether the demand of the consumers is elastic or inelastic.

Some of the cases are quite simple. Suppose we consider a duty on tea. There is practically no tea produced in the United States. A duty of 10¢ a pound would probably raise the price in the United States by 10¢. The demand for tea is relatively inelastic; that is, an increase of 10¢ a pound in price would cause little falling off of the amount used. While we use a considerable amount of tea, we are by no means the sole or principal market for tea; so, if we refused to take as much as usual, the tea would go to other countries.

The opposite extreme is the case of an article which we produce in such quantities that we not only supply the home market but also have a surplus for export. What would be the effect of a duty of 25¢ a bushel on wheat? In

general, it would have no effect on the price of wheat. It might upset some of the trade along the Canadian border. Canadian wheat is often milled in the United States and often shipped to Europe by way of this country. The duty might hamper this trade, as shipping in bond involves certain formalities. But it would have no effect on the price of wheat, for it does not alter the relation of the supply of wheat to the demand for wheat. The intermediate case presents the greatest difficulty. If high duties are levied on an article which is produced within the country, the foreign price plus the duty sets a maximum above which the domestic price cannot go, for foreign goods can be sold at that rate. If we assume that the product is produced by competing producers, the domestic price may be very much less than the foreign price plus the duty.

4. Revenue Tariffs.—The tariff as it existed in Great Britain before the war is a good illustration of a revenue tariff. It was levied on comparatively few articles, and, in case they were produced within the country, an internal duty equivalent to the tariff was levied on the home production. Thus, there was no element of protection.

The choice of articles of revenue tariffs is comparatively simple. Those articles will be chosen which are widely used and for which the customers have a rather inelastic demand. Sugar, coffee, and tea are good articles to tax from this standpoint.

The rate charged will depend partly on what is found to be the rate which will yield the largest revenue and partly on the taxation policy. The tariff on the articles which are widely used would throw the burden of taxation largely on the poorer classes. For this reason, a rate lower than the one which would yield the highest revenue might be put in force.

5. **Protective Tariffs.**—Here the aim is not revenue, but the hindering of imports. We have seen that the import duty ordinarily raises the price of the article on which it is levied. This increase in price of the foreign article enables the home producer to compete on more advantageous terms with the foreign producer. If the duty is put extremely high, it may be that the foreign article will be entirely kept out. The protective tariff aims to cause some readjustment in the distribution of the labor and capital among the industries of the country.

6. **Free Trade vs. Protection.**—The argument for free trade is based on the idea that international division of labor is desirable because it promotes the maximum production of goods. There is also the further idea that business men if left to themselves will pick out the most profitable employment for their labor and capital. The free-traders object to any interference with individual enterprise. It is the doctrine of laissez-faire applied to foreign trade. In political discussions, the free-traders complain that the tariff raises prices and thus increases the cost of living, favors one industry at the expense of others, and promotes trusts.

We will take up the protectionist argument more in detail in connection with the history of the tariff in the United States; but in general the protectionists admit that prices of protected articles are raised, but insist that compensating advantages are gained in the increase in productive capacity, in the development of a new industry, or in the safeguarding of an industry which is wanted in time of war.

7. **The Course of a Tariff Bill in the United States.**—According to the United States Constitution, the tariff bill

must originate in the House of Representatives. The party in power has a majority of the members on the various committees. The majority members of the Committee on Ways and Means usually frame the tariff bill. Usually, hearings are held by the committee. Most of the testimony is offered by the representatives of industries which want protection. There is very little representation of the interests of the consumers. The importers usually try to get lower rates. The bill is introduced by the chairman of the Committee of Ways and Means, and of course referred to his committee. It is reported back from the committee with a majority report recommending its adoption and a minority report pointing out the bad features of the bill as seen by the political party out of power. Members of both parties make long speeches for and against the bill, frequently with the idea that the speeches will be useful in the next campaign. The bill may be taken up schedule by schedule. Amendments may be offered, but usually they stand little chance of being adopted unless approved by the committee. The rules of the House of Representatives permit limitation of debate, and so frequently the bill is brought to a vote with reasonable quickness.

After the bill has passed the House of Representatives, it goes to the Senate. Here it is referred to the Finance Committee. The committee may hold hearings. It works over the bill, frequently making many changes. It reports out the bill with a majority report in favor and a minority report against its passage. In the Senate, because of the lack of effective means for checking debate, the progress of the bill is slower. Amendments from the floor have more chance of adoption. Finally, it passes the Senate.

Then it is sent back to the House. The House usually refuses to concur with the Senate amendments, so the bill is sent to a conference committee made up of members of both the House and the Senate. This committee arranges some compromise and reports it back to the House and the Senate. Ordinarily the bill as changed by the conference committee is passed by both houses. It then goes to the President for his signature.

8. The Political Evils of the Tariff.—The tariff has promoted sectionalism. The various sections have voted, not on the basis of what would be best for the country as a whole, but on the basis of the effect the bill would have on their particular sections.

There has probably been little direct corruption. But the protected industries through campaign contributions have had great influence on legislation. In general, it is well to avoid as much as possible legislation which is of direct pecuniary advantage to individuals.

The Senate has been a fertile field for "log-rolling." Here the smaller states have the same representation as the larger. A group may be formed, large enough to control the vote, each member of the group agreeing to support the other in the demand for certain duties for his constituents as the price of his support of the bill.

9. History of the Tariff in the United States, Illustrating the Arguments Used.—In our treatment of the arguments for and against protection, it will be helpful to follow briefly the development of manufactures in the United States and to attempt to indicate the conditions which gave rise to the arguments.

In the colonial policy of England, the mother country was to manufacture and the colonies were to provide the

raw materials. The Revolutionary War forced the colonies to manufacture, but at the conclusion of peace the goods from England once more gained the market. The failure to gain satisfactory trading agreements with England brought a very definite trend toward manufacturing. Experiments were made with the new power machinery in the textile industry. This was the situation when the first tariff act was passed.

In 1789, shortly after the new government under the Constitution replaced the government under the Articles of Confederation, the tariff was enacted. The new government needed funds. The people of the country did not relish any sort of direct taxation, so the tariff appealed to them because it was indirect taxation. The rates in the bill ranged from 5 per cent to 15 per cent. Although the bill was primarily for revenue, there was some clearly expressed protective sentiment. The best formulation may be found in the Report on Manufactures presented to Congress by Alexander Hamilton in 1791. He presents among others the *Infant Industry Argument for Protection in the General Form*. He discusses the problem of an agricultural country which wishes to develop manufactures at a time when other countries have already developed them on a large scale. It will be remembered that the industrial revolution occurred in England following 1750 and that there the factory system was first firmly established. The United States had been an agricultural country which had produced some raw materials for manufactures; but now the problem was, how could it, in competition with the well-established industries of Great Britain, start on a career of manufacturing? Hamilton recognized that those who wished to start manufactures in the United States

would be under certain severe disabilities. They would be under the necessity of training a labor force. They were unfamiliar with the machinery used in the industry. England was attempting to keep as a monopoly the new processes. To compensate for all of these disabilities, the home manufactures might be given a bounty, or a tariff be levied which would enable him to charge a higher price for his product than that for which the article could be imported. Hamilton thought that a protective tariff was the most satisfactory method to promote the development of manufactures.

We call this the general form of the Infant Industry argument because all of the industries need the protection. The tariff is to assist the country in making the transition from a purely agricultural economic organization to one in which manufactures would play a part, though not necessarily the most important part. The advantage gained is an increase in productive capacity. The resources of the country and the capabilities of the population are better utilized. Assuming that the country is fitted for manufactures, it is wise to pay more for manufactured goods for a time in order that the country may develop its productive capacity.

Not much came of the movement to develop manufactures at this time because of the shift in the international situation. The French Revolution and the wars which followed it gave the United States a chance to engage in the very profitable business of raising food to sell to the belligerents and to develop the carrying trade. The superior attractions of agriculture and shipping caused manufactures to be neglected. From 1790 to 1808, there were ten bills passed, raising particular rates and adding new

articles. The changes are explained usually by the need of the government for additional revenue.

The interference with our trade by France, in the Berlin and Milan decrees, and the British Orders in Council hampered the war business. Then the United States Embargo Act of 1807 and the Non-Intercourse Act of 1809 turned the attention of our people again to manufacturing.

After the War of 1812 was declared, all tariff duties were doubled. The revenue received was only about one-half of what it had been. The war stimulated home industries, and when it was over the owners of the industries demanded protection against the flood of European goods. In the discussion, what may be called the *War Argument for Protection* was prominent. This argument may be briefly put as follows: No country should be dependent on other countries for the means of defense or for those commodities which satisfy the primary wants of individuals. The argument was applied to the development of the iron and textile industries. In some other countries it has been used with reference to food. In 1816 a protective act was passed.

The next phase of the discussion brings forward the *Home Market Argument*. Henry Clay as part of his "American System" included protection for manufactures. He argued that the War of 1812 had shown the unreliability of the foreign market for our agricultural produce. What we needed to do was to develop manufactures as a market for our produce. He hoped to attract foreigners to work in the factories and so increase the population of the United States. He maintained that a home market was steadier and more secure. Ultimately, the quantity of manufactures produced would be increased and the prices lowered. This argument was addressed primarily to the Middle

States and the West. The Act of 1824 was a protective one raising rates.

The tariff Act of 1828 was called the "Tariff of Abominations." It raised some rates and included provisions distasteful to the protectionist states, yet they voted for it as being on the whole desirable. In 1830, a few of the abominations were corrected. The remainder were corrected in 1832. In the South, about this time, active opposition to protection was aroused. The grounds of complaint are summed up in the *Export Tax Argument against Protection*. McDuffie, in his speech in 1830, reasoned that imports are paid for by exports, and so any tax levied on imports acts just the same as a tax on exports. The South with its cotton and rice provided about two-thirds of the exports. Therefore, McDuffie argued that the South was paying about two-thirds of the expenses of the government. We would not agree with his analysis that it was the owners of the exporting industries who really paid the tax. The consumers of the articles imported were the ones who paid the tax.

The bill of 1832 was the one which South Carolina attempted to nullify. The result was the compromise tariff of 1833, which reduced all of the rates to 20 per cent by a series of changes covering nine years. Most of the reduction came in 1842. For a short time in 1842 we had the novel tariff with a uniform 20 per cent rate. However, the same year a protective bill was passed.

In the discussion preceding the bill of 1846, much was made of the argument of the *Unconstitutionality of the Protective Tariff*. This is set forth in its most elaborate form by Walker, who was secretary of the treasury at the time. It was a time when strict construction of the Con-

stitution was popular. Walker said that Congress has the right to levy duties to raise revenue. If the rate of duty is higher than the rate which would give the maximum revenue, obviously, the purpose of the duty is not to raise revenue but to accomplish something else, and so the duty would be unconstitutional. With the passing of the strict construction of the Constitution, this argument is seldom heard.

Another argument used at this time was the *Wages Argument for Protection*. Hamilton had said that the high rate of wages in this country was one of the obstacles the manufacturers had to contend with in starting new industries. After the protected industries had grown, it was evident that, at least in some of them, the ability to pay high wages depended on the existence of the protective tariff. It was a simple, though illogical, step to conclude that protection was responsible for the high general level of wages in the United States. We have seen in Turner's Introduction, page 456, that high wages arise from high productivity. We explain the high wages in the United States as being the result of our vast natural resources, the intelligence and industry of our population, the skill of our entrepreneurs, and the great amount of capital which we use in production. If we take an industry in which we have no natural advantage, but which, on the basis of the war argument, we have decided to protect, then we may say that the wages paid in that particular industry do depend on protection.

The Act of 1846 lowered duties, though the duties were still moderately protective. A surplus of revenue led, in 1857, to a reduction of about 20 per cent in all of the rates. Then came the Civil War. The Morrill Act of 1861 was

not really a war tariff, though it was passed after the war had started. It was a protective act. During the war, the tariff rates were greatly raised. When internal revenue duties were levied, especially in 1862 and 1864, the tariff duties were increased to compensate the manufacturers. Also many new protective rates were added.

After the war, the high rates were maintained. When the revenue increased, rates were lowered in 1870 on articles which were taxed for revenue, such as tea, coffee, sugar, and spices. In 1872, tea and coffee were made free and all other rates reduced 10 per cent. In 1875, this reduction was repealed. In 1883, the tariff had a revision by its friends. Not many rates were reduced and some were raised. In 1890, the McKinley bill was passed. The agricultural regions had become somewhat restive under the tariff, so great show was made of protecting them. At that time we were heavy exporters of agricultural production, so the duties accomplished nothing for the farmers. Our industries were developing to the place where a foreign market was desired for them. To assist them in getting a foreign market, provision was made for what was called "tropical reciprocity." Sugar and hides were admitted free unless the country of origin did not treat us fairly, in which case duties were levied. One provision of the bill illustrates the *Infant Industry Argument in the Particular Form*. By this time our manufactures were pretty well developed, but we did not have a tin-plate industry. Here was an industry, it was argued, which needed protection to get it started. The duty was unusual in that it required the industry to show a certain growth or the protection would be withdrawn.

The Act of 1894 is an interesting bill. In many political

discussions it is blamed with causing the panic of 1893, which happened the year before it was passed. The Democratic party were pledged to lower the tariff, but the Senate made the bill more protective. The campaign of 1896 was fought on the free-silver issue, but when the Republicans came in power they passed the Dingley Act in 1897. The Act was decidedly protective. Some rates were lowered, but others, such as silk, linen, and sugar, were raised. Elaborate provisions were made for reciprocity, but they were not effective because the Senate did not ratify the treaties which were negotiated under the provisions of the Act.

The Dingley Act lasted longer than any other tariff act in our history. In 1909, another revision of the tariff was made by its friends, with the result that some rates were raised, some lowered, but the general level of rates remained about the same. The rates in the Act were minimums. If any country discriminated against us unduly, an extra duty of 25 per cent of the value of the article was levied on all goods from that country. In the hearings preceding the passage of this bill, a new attitude on the part of some manufacturers was evident. They wished to develop their export trade and they found that they were hampered by high cost of materials which they had to obtain from protected industries.

In 1913, we have the first thoroughgoing revision of the tariff since the Civil War. The Underwood bill lowered many rates, such as woollens, cottons, iron, and steel; and put hides, leather, shoes, wheat, flour, cattle, meat, wool, coal, and lumber on the free list. In spite of all these reductions, there was considerable protection in the bill. The principal argument in the campaign used by the Demo-

crats against protection was that the *Tariff Caused the High Cost of Living*. This proved to be a very telling campaign argument. The war gave the Democrats an explanation for the failure of the cost of living to drop. Most economists agree that the tariff had little to do with the cost of living. In so far as they were talking of the general level of prices, most economists would explain the rise primarily as a result of monetary changes, such as the increased production of gold and the extension of banking. In so far as high cost of living referred to food costs, the explanation runs in terms of the disappearance of our free fertile land and the working out of the Law of Diminishing Returns in the historical sense.

In 1920, the Republicans came into power. A special session of Congress was called. An emergency tariff bill was passed to protect the farmers. In the deflation of prices following the post-armistice period, the prices of farm products fell sharply, causing great distress in the agricultural regions. Some of the duties levied were: wheat, 35¢ a bushel; wheat flour, 20 per cent; corn, 15¢ a bushel; potatoes, 25¢ a bushel; wool, 15¢ to 45¢ a pound; and sugar, 1.16¢ per pound for sugar of 75 degrees and .04¢ for each additional degree.

Besides the agricultural provisions, a section provided an antidumping duty equal to the difference between the offering price and the foreign-market value. Another section provided control of the import of dyestuffs, which practically amounts to prohibition.

The bill as enacted was to remain in force for six months. The expectation was that before the expiration of six months a permanent tariff bill would be passed. However, no permanent bill was agreed upon at the special session,

and so the life of the emergency bill was extended until a permanent tariff bill should be passed.

10. The Tariff Commission.—Many people have argued that we ought to have a scientific tariff with rates adjusted to changing conditions by a commission of experts. It is idle to expect that Congress would be willing to give up its power of legislating on the tariff, and the change would require an amendment to our Constitution. There is, however, a function which a tariff board or commission can perform. It can gather information and present it to Congress. The Tariff Board during President Taft's administration made comprehensive reports on the woollen and cotton industries. The present Tariff Commission dates from 1913. It has made a glossary of all of the terms used in connection with the tariff and made many special reports, such as, on the aniline-dye and other industries started during the war, and on free ports.

11. The Present Discussion.—At the present time, we have the Infant Industry argument applied to the aniline-dye industry. The United States is a great manufacturing nation. The argument in its general form would no longer apply, but in the case of this one industry which we desire to develop we apply the argument in the particular form. We say that the American manufacturers of aniline dyes are under certain disadvantages in the period after the war until they have developed the methods of manufacturing; and, furthermore, that until they will have been able to get together a skilled labor force, they will need protection.

To-day the war argument is most used in this country with reference to the aniline-dye and certain other so-called "key" industries. The connection of the aniline-dye in-

dustry with the war was a double one. In the first place, as a result of the isolation of Germany we were put at considerable inconvenience to find dyes for textile and other industries. We wished to provide against the recurrence of this situation. The second phase is more directly connected with the prosecution of a war. The first steps in making some types of explosives and in making aniline dyes are the same. Thus, we can quickly turn the aniline-dye factories into factories for the manufacture of high explosives should it be necessary.

A third appeal for protection is the *Bargaining* argument. We are urged to enact protective legislation in order that we will have what the small boy would call "trading" stock when we come to bargain for tariff concessions from other countries; that is, people argue that if we do not have a tariff, if we permit other countries to send without hindrance their products to this country, then we have no way of making them give us concessions, but if we put a protective tariff on various products, then we can get concessions by removing this tariff.

12. The Problem of Dumping.—At the present time, dumping is a serious problem. We must distinguish a number of things which may be called dumping. The first is the sporadic selling of surpluses abroad at lower prices than they are sold at home, with the idea of keeping the price in the home market somewhere near normal.

The second is a continuous dumping which occurs ordinarily when the home market is protected and when the industry at home is under the control of a monopoly. In the case of many German industries, there was control by a cartel. This cartel kept the price at home at a certain profitable figure and sold surpluses abroad at low

prices. This differs, of course, from the first case in being a permanent policy. This is of particular advantage when it is used to prevent the development of the industries in other countries. The cartel which controlled the aniline dyes would be able to sell in the United States at a rate which would prevent the development of the dye industry in the United States.

13. The Tariff and the Debts Owed Us by Europe.—During the war, we loaned our allies about \$9,000,000,000. In 1921, the interest due brought the sum up to over \$10,000,000,000. What we really loaned, of course, was food, munitions, and ships. The repayment would need to be in goods. So, it is argued that if we really wish to receive repayment, it will not do to have a tariff which will prevent, or greatly hamper, imports from Europe. Some have argued that it would be better to cancel the debts, for the goods sent in repayment of them would drive our producers out of business. In the transition period, there might be some trouble, but the final result would be that we would get some things by importation and our manufactures would be in the lines in which we possessed the greatest advantages.

14. Discriminations and Unfair Competition in Foreign Trade.—This is analogous to the practices noticed within the country in the discussion of trusts and monopolies. One country may be favored over another. In the early days, much of the tariff policy had a political aspect; thus, England wished to injure France in every way and so discriminated against her. Dumping and stealing of trade-marks have been very common. Sometimes sanitary regulations have been used to keep out the products of a given country. Germany from 1883 to 1891 kept out our pork

products on alleged sanitary grounds. Germany gave preference to Swiss cattle and discriminated against other countries by using the description "large dappled mountain cattle or brown cattle, reared at a spot at least 300 metres above sea-level, and which have at least one month's grazing each year at a spot at least 800 metres above sea-level."

Discriminations of a more open character will now be considered.

15. Reciprocity Treaties.—From the standpoint of the contracting parties, these treaties seem to be the extension of good-will in international relationships. From the standpoint of the outsiders, the treaty looks like discrimination. In return for reductions of duties on certain articles in one country, the second country gets reductions on another group of articles when sent to the first country. We have an agreement with Cuba: we give Cuban sugar reduced rates when it comes into the United States and Cuba gives reduced rates on certain of our products when they are sent to Cuba. To the producer in Java this arrangement seems to be a discrimination.

Many countries have treaties with other nations providing for "most-favored-nation" treatment. In Europe, these treaties are interpreted to mean that any reduction granted to a country is automatically extended to all countries with which "most-favored-nation" treaties have been negotiated. The United States has interpreted the treaties to mean that a similar reduction would be made for the other countries if they gave something in return.

16. Colonial Preference.—The development of colonial possessions by the various powers has given rise to a problem with reference to the trade of the colonies. Of course,

in the early colonial days, the seventeenth and eighteenth centuries, the colonies frankly were treated as possessions of the mother country to be used or exploited in any way which was profitable to the mother country. We have advanced from this idea to the point where we insist that the interests of the colonies must be considered in the development of colonial policies. The question now is, shall the interests of other countries be considered in the development of the colonies? Has the mother country the right to the exclusive trade of the colonies, or if not the exclusive trade, has the mother country the right to demand that its trade be granted preferences over the trade of other countries? Great Britain has a great colonial empire. Many of the colonies give to goods from the mother country a lower rate than is charged when the goods come from other countries. A proposal for tariff reform in England suggested that protective tariffs be levied and the colonies be given preferential rates on food products. To some people, colonial preference seems to be a discrimination against outsiders. Thus, they would say that the Philippines should charge no higher rate on goods from Europe than on those from the United States.

17. The "Open Door."—The phrase "open door" implies equality of treatment to all nations, not only in tariff rates, but also in investment opportunities. It is applied to colonies. But, at present, the most important applications are to China and to the regions held under mandates from the League of Nations. It does not mean that no duties will be charged, but that any duties levied shall apply to all equally. Many fear that, despite the provisions in the peace treaty about the "open door" in the mandated regions, ways will be found to hamper the trade

of other countries and to reserve the natural resources for exploitation by the country which holds the mandate.

18. Exercises.—1. Why are most tariffs levied on imports?

2. How are the tariffs in the United States arranged?

3. Explain the different kinds of duties.

4. Indicate under what conditions the foreigner can be forced to pay the tariff and under what conditions the consumer pays it.

5. State the general ground of disagreement between free-traders and protectionists.

6. Show concretely how a tariff may change the direction of the application of the labor and capital of a country.

7. Argue that a tariff can or cannot increase the labor and capital in a country.

8. If left to individual enterprise, will the labor and capital of a country always go into the industries which will most benefit the public?

9. What is meant by an increase in the wealth of a nation? How does foreign trade help?

10. If it pays a lawyer who is a good stenographer to spend all of his time at law and hire a stenographer, what, by analogy, would it pay a country to do which may produce various things?

11. Show how conditions in the United States led to the use of the various arguments for and against protection.

12. Trace in broad outline the course of tariff rates in the United States.

13. Show the fallacy of the wages argument for protection.

14. Follow the course of a tariff bill through the United States Congress.

15. Illustrate what is meant by log-rolling.

16. What are the political evils of the tariff?

17. Under our present political system, what are the imitations on the activities of a tariff commission?

18. What would be a scientific tariff?

19. Outline as far as possible the present attitude toward the tariff of the following: the farmers, the consumers, manufacturers who wish to export, other manufacturers, bankers, the South, New England, the Middle Atlantic States, the Middle West, and the Far West.

20. What is the effect of a tariff on wheat or raw cotton?

21. What is the objection to the practice of dumping on the part of consumers in the country which does the dumping?

22. Illustrate unfair competition in foreign trade.

23. What is a reciprocity treaty?

24. Distinguish the European and American interpretation of most-favored-nation treaties.

25. Give examples of colonial preferences; to what extent are they justifiable?

26. What is meant by the "open door"?

27. How, in practice, may the "open door" be nullified?

28. What problems arise in connection with the control of raw materials?

CHAPTER XVIII

PUBLIC FINANCE

1. The Scope of Public Finance. 2. The Sources of Public Revenue—Taxes—Fees—Public Prices. 3. Government Borrowing—War Debts. 4. Justice in Taxation—Benefit Theory—Ability Theory—Cynical Theory. 5. Rates of Taxation. 6. Incidence of Taxation. 7. Government Expenditures. 8. The Budget—Advantages—New York City—New York State—Federal Government. 9. Exercises.

1. The Scope of Public Finance.—The use of the term political economy by the early writers indicates the large place which public affairs held in their thought. It will be remembered that the mercantilists devoted themselves to questions of public policy, such as duties and regulations of foreign trade; and that in Germany a class of writers, called cameralists, studied the problem of public administration, especially the methods of raising revenue.

Two aspects of the question demand our attention: *First*, where do the governing bodies get the money they spend? *Second*, for what purposes do they spend it?

2. The Sources of Public Revenue.—At the present time, the receipts of governing bodies come mostly from taxes, loans, fees, and returns from government-operated utilities.

Taxes are forced contributions to the expenses of the state. We shall see later that they are levied in numerous ways, but always there is the idea that the tax is a general contribution, not a payment for any specific service.

Fees, on the other hand, are levied in connection with certain particular activities; such as recording deeds and

other papers, and getting licenses. Here there is a certain element of compulsion. Usually, mortgages must be recorded. The primary purpose is perhaps the public benefit; yet the person who pays the recording fee gets some direct benefit, and payment is made only when one needs the service.

Public prices are defined as amounts paid by consumers for service rendered. For example, many municipalities own the water-supply system. The payment for the water is a part of the revenues of the city. It is obvious that there is no element of compulsion. One does not need to buy unless he wishes. Roughly, the price is set as other prices are, modified by the consideration that there is ordinarily a monopoly and that frequently for public policy the price is kept down.

3. Government Borrowing.—Government loans are short time or long time. The short-time loans are to cover deficits, and sometimes are issued in anticipation of tax collections. Nations frequently borrow from the central banks of the countries. Thus, the Bank of England loans the government on exchequer bills. In this country the Federal Reserve Banks loan the government on treasury certificates of indebtedness.

The longer government loans arise from wars and from expenditures for improvements or the acquisition of industries. The form of these loans is ordinarily the unsecured bond. The buyers have confidence in the promise to pay of the issuing government. Bonds issued by backward countries are sometimes secured by a lien on the customs or some other source of revenue. The Anglo-French 5's, issued shortly before we entered the war, were unusual in being secured by collateral. The large part played by

war in the creation of indebtedness is all too plain to those who live to-day. The world is staggering under a burden of debt.

DEBTS BEFORE AND AFTER THE WAR¹

(In million dollars)

	Before War	After War
United States.....	1,208	26,597
Great Britain.....	3,458	37,657
Canada.....	336	1,584
Australia.....	93	1,619
New Zealand.....	446	734
France.....	6,598	30,494
Italy.....	3,031	15,009
Japan.....	1,261	1,284
Russia.....	5,092	54,402
Belgium.....	722	1,889
Greece.....	188	521
Germany.....	1,165	40,007
Austria.....	2,631	17,071
Hungary.....	1,602	8,909
Turkey.....	667	2,002
Bulgaria.....	171	1,158
Total.....	28,669	240,937

¹ L. R. Gottlieb, Debts, etc., of Principal Belligerents, *Quarterly Journal of Economics*, vol. 34, November, 1919, pp. 164-165.

In the United States, the Panama Canal was built largely by funds obtained from the sale of bonds. Abroad, when countries have acquired railroads or telephone lines, the payment has ordinarily been made by issuing bonds. In this country where states made improvements which are supposed to be long lived, the cost is paid by the sale of bonds. Thus, New York State sold bonds to modernize the Erie Canal. Many states are going in debt to build good roads. In the local governments we find bonds issued to build public buildings, to pave streets, to put in sewer

systems, to buy parks, and for other purposes. Sound finance in such cases demands that the bonds be paid off during the life of the improvement. Many cities are still paying interest, and have yet to pay the principal of bonds issued to finance improvements long since worn out. Where cities are fairly large, it is much better to follow, as did New York City for a while, the "pay as you go policy."

4. **Justice in Taxation.**—The problem of justice in taxation relates to the question of the apportionment of the tax burden. How much ought each to contribute? There are two recognized theories and one which is implicit in much of the practice.

Benefit.—One group urges that benefit should measure the contribution. The government provides certain services which should be paid for by the users. This theory is workable for certain services, say fire protection. The cost might be assessed on property-holders according to the value of their property with perhaps some scale of rating which took into account the variation in fire hazard. But how can we rate some of the services the government performs? What value is the system of justice to an individual who never in his whole life goes to court? Is the talk about the inestimable advantages of our free institutions mere Fourth-of-July oratory? Again, many of the services of the government are for the benefit of those who cannot pay. The insane, the paupers, the sick who are cared for in public institutions, cannot pay for the benefits received. So the benefit theory does not seem to be workable. We would all agree that no money should be raised by taxation the spending of which does not benefit the public; but the amount of individual benefit cannot be used as the basis for levying the taxes.

Ability.—The second group urges that taxes should be levied according to ability to pay. Most people accept this theory; of course, all the time magnifying the ability to pay of all but themselves. Take the problem of a class in college raising funds, the problem of class taxation. For ordinary small things, the assessments are equal. The amount is so small that ability may be assumed equal. But suppose it is the question of raising funds for class gift to the school or a big donation toward endowment. Then the common feeling is that the more wealthy should contribute more than the poorer members of the class.

Cynical.—The third theory finds few to defend it, but many to follow it in practice. It might be stated as follows: the raising of taxes is a matter of practical politics. No one likes to be taxed. Our business is to provide the revenues to spend in the way which will cause the least outcry from politically powerful groups, without becoming sentimental about questions of justice. Thus, if indirect taxes raise revenue without the people realizing it, they are good taxes, even though they may be paid mostly by those least able to pay.

Another point with reference to justice in taxation has to do with the problem of getting changes in the distribution of wealth through taxation. Taxation could be so used, if the people as a whole desired it, but on the whole the problem of inequality had better be attacked more directly. Heavy taxation under the ability theory will doubtless make the distribution of wealth more uniform.

5. Rates of Taxation.—Taxation may be levied on various bases. We may tax on wealth, income, consumption. In any case, we have the problem. Shall the rates be proportional, progressive, or regressive? Suppose we are tax-

ing on income. Shall we say that all shall pay the same proportion of their income? This we call proportional taxation. Or shall we say that as a man's income increases he shall pay a larger proportion in taxes? This is progressive taxation and the method actually used in the federal income tax. Or shall we say that the smaller the income the larger proportion shall be taken? This is regressive taxation. It probably would be defended by no one but is the result which follows the levying of a tax equal in amount on all taxpayers. Taxes on necessities of life also work out in practice as regressive taxes. Of course, we must consider the taxation system as a whole. It is the combined effect of all of the taxes which determines the justice, not the effect of one tax.

6. The Incidence of Taxation.—Not all taxes are really paid by the persons on whom they are levied. We say they *shift*. The incidence of the tax is upon the persons who finally pay the tax. The problem of shifting is always a value problem to be solved in terms of demand and supply. There is nothing automatic about the process. The shifting must come about through changes in prices. The problem is one of the most complex in economic analysis, and we can take only a few elementary cases. (a) A tax on land will not shift. The renter will not pay more for land merely because the owner is more heavily taxed. What he pays is the market price of the productive services of the land, and the tax has no effect on the demand for or supply of land. (b) A tax on buildings will shift to the renter. The shifting may not take place at once. There may be a lease running for some time. The shifting takes place more or less rapidly, depending on whether the city is growing rapidly or not. The reason for the shifting lies

in the necessity of getting investors to put up new buildings to replace those wearing out, or to provide for the growth in population. This they will not do unless they get a certain net return. Thus, we see that by the limitation of supply the shifting takes place. (c) Taxes on articles produced under competitive conditions in the long run will be shifted to the consumer. The reasoning is similar to the case of buildings. The variation in time required to make the shift is a question as to the amount of capital in the business which cannot be utilized for some other purpose. But ultimately the plant will not be renewed, and so the supply will not be forthcoming unless the price covers the tax as well as the other costs. (d) A tax on the net profits of a monopoly will not shift. We have seen that the alert monopolist sets the price at the point which will yield him the greatest net profits. The levying of the tax reduces his profit, but raising the price would cause a loss. (e) A tax on a commodity produced by a monopoly may be shifted. We cannot be sure that it will be shifted until we know the conditions under which the article is produced and the shape of the demand curve for the article. But since the tax is levied on each unit produced, it may well be that the greatest net profit will be gained by selling an amount smaller than before, at a higher price.

7. Government Expenditures.—The second problem of public finance is the problem of expenditures. In later chapters we shall see the various purposes for which the public money is spent. Here our interest is in the general principles which should underlie expenditures. Ordinarily, all the government spends it must get from the citizens. The problem then is just how much shall be done at public expense for the good of all. The answer will depend on

the nature of the various services and the efficiency of the government. Historically, the trend has been toward government taking over more and more functions. Adam Smith¹ said duties of the government were: (1) to protect from violence and invasion without; (2) to protect individuals from injustice and oppression; (3) to erect and maintain certain public works and institutions which individual enterprise will not undertake because it would not be profitable. Now we take a broader view. In the early days many roads and bridges were privately owned and a toll was charged for the use of them. There has been a steady increase in the amount of education furnished by the public; at first only primary schools, then high schools, and finally colleges and universities. The modern city does many things for the citizens which the village would not think necessary; such as garbage removal, the provision for recreation, public concerts, libraries, art museums, and hospitals. In many of these things we may say that doing them publicly gains the advantages of large-scale production. But we have, on the other hand, to contend with the inefficiency which comes from regarding offices as the spoils of politics instead of a public trust. Another problem has to do with the extent to which it is fair to tax one group to raise funds to expend for the benefit of another group. Thus, should New York City be taxed for expenditures which benefit primarily the remainder of the state?

8. The Budget.—In homely language, when a government has a budget system it attempts to act in managing its receipts and expenditures as a prudent man does. In the United States one of the fundamental principles of our governmental organization has been the “separation of

¹ *Wealth of Nations*, book IV, chap. IX.

powers." We have had executive, legislative, and judicial departments all independent. Even in the legislative department, often different committees have looked after revenues and expenditures with very little consultation. Thus, we have ordinarily had little attempt to adjust expenditures to revenues. In general, we have been growing rapidly in wealth and usually have had a surplus of revenue. Of course, this condition has led to extravagance; to pork-barrel legislation based on the plan of doing something in the way of public buildings, or river and harbor improvements for each congressman and senator. Every one who desired something done, tried to get the federal government to do it. Thus, recently we have had federal aid for road-building and for vocational education.

As the result of the great war, our federal expenditures have increased tremendously, and we must consider more carefully than ever before what we can afford to spend and how we shall raise the revenue.

In the countries which have cabinet government, there is closer co-operation between the executive and legislative branches. The cabinet holds office so long as it commands the support of the legislative body, and it is chosen in the first place from the legislative body. The cabinet must present the budget which shows the proposed expenditures and the methods for meeting them. The opposition party then has its chance to criticise both the record of the government and the new proposals.

*Advantages Claimed for the Budget.*¹—(a) It is an instrument of democracy. It enables the people to understand what has been going on, and to control the government.

¹ W. F. Willoughby, *The Movement for Budgetary Reform in the States*, pp. 1-4.

(b) It correlates legislative and executive action. The budget gives larger responsibility to the executive in making and carrying out plans, but also gives the legislature better methods of holding the executive responsible for the results.

(c) It secures administrative efficiency and economy. In a way, it is the application of modern business methods of accounting in governmental affairs. Each department is checked up. Its chance to get appropriations depends upon its record in the past.

In the United States, considerable progress has been made in budget procedure in cities and states. Thus, in New York City the procedure is as follows:

*New York City.*¹—The Department of Finance sends forms to all the bodies which get support from the city. On these forms are to be recorded actual expenditures in the past and estimates for the next year. These are sent out in the summer and returned in September to the Department of Finance. Examiners from this department work over the material presented and recommend appropriations to the Board of Estimate and Apportionment (composed of the mayor, the comptroller, the president of the Board of Aldermen, and the five borough presidents). Hearings are held, at which department heads may defend their estimates and the examiners defend their suggestions. What is decided on is called the "tentative budget." Next public hearings are held, and any taxpayer may suggest changes. As a result of the hearings, the budget may be revised. It must be passed before November 1st. Next, it goes to the Board of Aldermen, which can reduce but not increase items. They have twenty days to deal with

¹ Munro, *Principles and Methods of Municipal Administration*, pp. 447-449.

it. When passed by them, the budget goes to the mayor, who may veto their amendments. Unless the aldermen by a three-fourths vote override the mayor, his veto means that the original item replaces the amended item. Finally, after adoption, the budget is certified by the mayor, comptroller, and the city clerk and the amounts indicated are appropriated.

This budget illustrates the type which attempts to control administration by requiring minute specification of the purposes for which amounts are asked.

The Budget in New York State.—New York has not adopted the budget in the full sense. Its budget may be called a legislative budget. The governor within a week of the start of the session sends to the legislature a statement of appropriations desired by each state body or institution which gets money from the state. The governor may suggest additions or reductions. He may also give estimates of probable revenues for the year. The Finance Committee of the Senate and the Ways and Means Committee of the Assembly prepare and submit a budget containing complete and detailed statement of all appropriations. They also make an itemized and detailed estimate of probable revenues and the amount of direct tax necessary. The law provides for the presentation of the budget in the form of an appropriation bill and specifies the procedure to be followed in its passage. The meetings at which the appropriation bills are considered are open to the public. On the third reading, reductions may be made, but no increases are permitted except by unanimous consent.

The Federal Budget.—After many years of effort, the Congress has finally passed a plan for a budget. The law was effective July 1, 1921. It is an executive budget prepared

for the President by a bureau in the Treasury Department.

The new procedure for the federal government is laid down in the Budget and Accounting Act, 1921, which was signed by the President on June 10, 1921. The President is made responsible for reporting the budget to Congress. He sends Congress at the beginning of the regular session a budget which shows:

(a) The condition of the Treasury at the end of the last fiscal year, and the estimated condition for the year in progress and for the following year if the proposals of the budget are carried out.

(b) The revenues and expenditures of the federal government for the last fiscal year and the estimated revenues and expenditures for the current year.

(c) The President's suggestions for revenues and expenditures for the ensuing year.

(d) Any information which will help Congress in deciding on the administrative and financial policies of the government.

In effect, this budget will combine a report of how the government has been conducted and proposals for conducting the government in the future.

The start in making the budget will be the requests of the various departments for appropriations. The President, however, must use his judgment in submitting these requests in the budget, since he assumes responsibility for asking for the money when it is included in the budget. It will be the President's duty to suggest that funds be given to the various departments in such a way as to insure economy and efficiency. Of course, the President cannot do this in person, so the Bureau of the Budget is

provided to assist him in formulating the budget. This bureau is presided over by a director, who is in a sense the President's personal representative. The director is not limited to passing on the requests of the various departments and bureaus. He may make suggestions about changes in organization or activities to promote efficiency. This Bureau of the Budget is nominally a bureau of the Treasury Department, but the secretary of the treasury has no control over it. The director is responsible directly to the President. The budget when it comes to the House will, by amendment of the rules of the House, be handled as a single programme. This is a great advance over the previous system in which many committees worked independent of each other and made a general financial programme almost impossible. Just as the individual must decide between certain competing avenues of expenditure, so Congress refuses many things, not because they are not good in themselves, but because the limited amount of money available for appropriations makes it necessary to choose those things which are more important.

The part of the Act referring to accounting makes provision for an independent examination and audit of all government expenditures. The Act provides for a comptroller-general of the United States to head an independent accounting office which will take over the duties performed by the comptroller of the treasury and the six auditors of the Treasury Department. The comptroller-general is given permanent tenure of office. He may be removed only on impeachment or by joint resolution of Congress when it decides that he "has become permanently incapacitated or has been guilty of neglect of duty, or of malfeasance in office, or of any felony or conduct involving

moral turpitude." The one idea back of the change is to replace the audit which previously was interested merely in whether the technical requirements of law had been fulfilled with one which aims to promote the efficiency of the administration of the government's financial affairs. If the comptroller-general performs his functions properly, it will not be necessary for Congress to hold periodic examinations as it does now into the activities of the various departments which receive funds from Congress. Too often, of course, these investigations have been for partisan purposes.

This legislation makes possible, if Congress and the administration are willing to co-operate, a more efficient and businesslike conduct of our federal government.

The following tables were sent to Congress on December 5, 1921:

9. Exercises.—1. Distinguish public and private finance.

2. What sets the absolute limit on the amount that can be spent by an individual? by a corporation? by a government?

3. What interest has the business man in public finance?

4. What are the sources of government revenue?

5. Distinguish taxes, fees, and public prices. How is the amount of each determined?

6. Explain the methods used by the United States Government to get short-time loans (less than one year).

7. Contrast the principles which underlie prudent borrowing by an individual; by a corporation; by a government.

8. Contrast the security back of corporation bonds and United States Government bonds.

9. Why do not governments sell stock? What is meant by the stock of New York City?

BUDGET SUMMARY

[Exclusive of postal revenues and postal expenditures paid from postal revenues]

	1923, Estimated	1922, Estimated	1921, Actual
Total receipts	\$3,338,182,750	\$3,943,453,663	\$5,624,932,960.91
Total expenditures, including reduction in principal of public debt	3,505,754,727	3,967,922,366	5,538,040,689.30
Excess of expenditures	\$167,571,977	\$24,468,703	.....
Excess of receipts . . . . .	.....	.....	\$86,892,271.61

ESTIMATED EXPENDITURES FOR 1922 AND 1923

	Estimated Budget Expenditures, 1923	Estimated Expenditures, 1922	Actual Expenditures, 1921
Legislative	\$16,265,215	\$15,984,446	\$18,994,565.17
Executive office	227,045	227,045	197,341.68
State Department	10,432,624	11,406,032	8,780,796.84
Treasury Department	168,997,160	169,871,163	476,352,192.21
War Department	360,902,107	389,001,406	1,101,615,013.32
Panama Canal	7,358,839	7,219,849	16,461,409.47
Navy Department	431,754,000	478,850,000	650,373,835.58
Interior Department	41,799,022	35,005,829	39,687,094.86
Indian Service	31,883,000	33,135,000	41,470,807.60
Pensions	252,350,000	258,400,000	260,611,416.13
Post Office Department	3,357,092	3,276,454	5,230,650.15
Deficiencies in postal revenues	21,509,666	48,172,270	130,128,458.02
Department of Agriculture	47,497,530	48,697,100	62,385,709.93
Expenditures for good roads	1 125,700,000	1 105,000,000	57,452,056.48
Department of Commerce	19,939,070	20,131,800	30,828,761.55
Department of Labor	6,301,835	4,796,916	8,502,509.55
Department of Justice and Judicial	18,415,681	16,825,568	17,206,418.03
Shipping Board and Fleet Corporation	50,495,735	73,911,081	130,723,268.26
United States Veterans' Bureau	455,232,702	438,122,400	.....
Railroad Administration and Transportation Act . . . . .	.....	337,679,235	730,711,669.98
Federal Board for Vocational Education	5,529,244	4,756,344	104,671,772.62
Other independent offices, including War Finance and Grain Corporations	17,034,583	16,983,165	83,596,418.52
District of Columbia	25,070,877	22,575,063	22,558,264.16
Increase of compensation . . . . .	.....	35,000,000	.....
Purchase of obligations of foreign Governments . . . . .	.....	.....	73,866,697.44
Purchase of farm loan bonds . . . . .	.....	.....	16,781,320.79
Deduct unclassified repayments, &c. . . . .	.....	.....	922,593.14
Ordinary expenditures	\$2,127,053,927	\$2,574,758,166	\$4,088,295,848.20
Reduction in principal of the public debt:			
Sinking fund	\$283,838,800	\$272,442,200	\$261,100,250.00
Purchase of Liberty bonds from foreign repayments	30,500,000	30,500,000	73,939,300.00
Redemption of bonds and notes from estate taxes	25,000,000	25,000,000	26,348,950.00
Redemption of securities from Federal Reserve Bank franchise tax receipts	30,000,000	60,000,000	60,724,500.00
Total net reduction in principal of public debt	\$369,338,800	\$387,942,200	\$422,113,000.00
Investments of trust funds:			
Government life insurance fund	\$26,162,000	\$22,022,000	\$20,325,152.88
Civil service retirement fund and District of Columbia teachers' retirement fund	8,200,000	8,200,000	8,161,956.87
Trust fund investments	\$34,362,000	\$30,222,000	\$28,487,109.75
Interest on the public debt	\$975,000,000	\$975,000,000	\$999,144,731.35
Total expenditures	\$3,505,754,727	\$3,967,922,366	\$5,538,040,689.30
Excess of estimated expenditures over ordinary receipts, fiscal year 1923 . . . . .	.....	.....	\$167,571,977.00
Excess of estimated expenditures over ordinary receipts, fiscal year 1922 . . . . .	.....	.....	24,468,703.00
Excess of ordinary receipts over expenditures payable therefrom, fiscal year 1921 . . . . .	.....	.....	86,892,271.61

¹ The above table includes estimates of additional expenditures during 1923 and 1922 for good roads, authorized by the Act of November 9, 1921.

10. Should bonds be sold by a city to pay current expenses? to buy parks? to pave streets? to erect a city hall?

11. How do weak governments add security to their bonds?

12. Is the matter of permanence of the investment the decisive factor in the question of whether bonds should be issued or whether the payment should be made from current revenue?

13. Should state and municipal bonds be exempt from taxation in the jurisdiction that issues them?

14. Contrast the serial method of paying bonds with the sinking-fund method.

15. What is the purpose of state laws limiting the borrowing power of cities?

16. State the cases where the benefit theory appeals to you as being fair.

17. What difficulties arise in applying the ability theory of taxation?

18. What is the theory of justice in taxation followed by most legislators?

19. Argue for and against using taxation as a method of changing the present distribution of wealth.

20. Distinguish regressive, proportional, and progressive rates. To illustrate, give rates on incomes of \$1,000, \$8,000, and \$10,000.

21. Which rates would the benefit theory lead to? the ability theory?

22. If we take equal ability to mean equal sacrifice, what would the Law of Diminishing Desirability indicate about the rate which should be used?

23. Is the shifting of taxes undesirable?

24. What is the fundamental difference between land and buildings which causes the difference in the incidence of taxes laid on them?

25. Is the tax on movies shifted?

26. Should a government adjust its expenditures to its revenues or adjust its revenues to its expenditures?
27. Why have government expenditures increased in the last century?
28. How much should a government provide in the way of education? recreation? music?
29. What is the fundamental idea of the budget?
30. What features of our form of government make the working of a budget difficult?
31. What advantages are claimed for the budget?
32. Outline the procedure in New York State.
33. Describe the federal budget.
34. Why did Liberty bonds depreciate?
35. Assuming competitive conditions, trace by means of diagrams the effect caused by the levy of a tax on a commodity produced under conditions of (a) constant cost; (b) increasing cost; and (c) decreasing cost.
36. What is the effect on the distribution of wealth of public borrowing?

CHAPTER XIX

RECEIPTS AND EXPENDITURES OF THE FEDERAL GOVERNMENT

1. The Principal Sources of Revenue. 2. Financial Transactions of 1920. 3. War-Profits and Excess-Profits Tax. 4. The Federal Income Tax. 5. The Estate Tax. 6. Internal Revenue Duties. 7. Details of Expenditures. 8. The Problem of the Debt. 9. Revision of Taxation. 10. Exercises.

1. The Principal Sources of Revenue.—The tariff has been the steadiest contributor to the revenues of the federal government. Before the passage of the Homestead Act in 1862, the sales of public lands, at times, brought in considerable revenue. This was particularly true in the years before the panic of 1837. The largest amount from public lands since the passage of the Homestead Act was \$11,202,017.23, which was received in 1888. Internal revenue duties were resorted to during the Civil War, and large sums were raised. As soon as possible after the war, most of them were repealed. The ones on liquor and tobacco and a few others were retained. In 1909 there was levied a tax on the net earnings of corporations, and the proceeds were included as internal revenue. The maximum amount from internal revenue after the Civil War taxes were repealed and before the levying of the tax on the incomes of corporations was \$307,180,663.77 in the year 1901. Of course, the coming of the Great War brought another resort to internal revenues. The maximum amount which has been received from customs tariff was \$333,683,445.03 in the year 1910.

2. **The Financial Transactions of 1920.**—The following figures give a summary view of the financial transactions of the United States Government for the fiscal year ending June 30, 1920:

FINANCIAL TRANSACTIONS OF THE UNITED STATES
FOR THE FISCAL YEAR 1920¹

Net balance in general fund June 30, 1919.....	\$1,251,664,827.54
Receipts exclusive of the principal of the public debt..	6,694,565,388.88
Public-debt receipts.....	15,852,855,030.64
	<hr/>
	\$23,799,085,247.06
Disbursements exclusive of principal of public debt..	\$6,403,343,841.21
Public-debt disbursements.....	17,038,039,723.62
	<hr/>
	\$23,441,383,564.83
Net balance in general fund June 30, 1920.....	\$357,701,682.23

The large amount of the transactions in the public debt which appear as both receipts and disbursements is due to the use of short-time certificates of indebtedness. Some of the certificates, which mature at the time when big payments are received from the income and excess-profits taxes, are paid off; but in general the maturing series is paid off by selling a new series.

The receipts of the United States Government for the fiscal year ending June 30, 1920, will now be presented in greater detail, and some of the sources of revenue will be discussed.

At once we are struck by the large proportion of the receipts which come from incomes and excess profits.

3. **War-Profits and Excess-Profits Tax.**—This tax had a double purpose. In the first place it was thought that any

¹ Report of Secretary of Treasury, 1920, p. 411.

RECEIPTS OF UNITED STATES GOVERNMENT FOR
FISCAL YEAR 1920¹

Income and profits.....	\$3,956,036,003.60
Estates of decedents.....	103,635,563.24
Distilled spirits and alcoholic beverages.....	139,871,149.80
Under provisions of prohibition Act.....	641,029.34
Tobacco and manufactures.....	295,809,355.44
Oleomargarine, renovated butter, mixed flour.....	3,811,872.65
Bonds and stocks, future sales of produce.....	84,347,827.49
Transportation.....	289,348,087.35
Insurance.....	18,421,754.01
Excise taxes on manufactures, producers and importers	216,146,750.07
Excise taxes on consumers and dealers.....	109,199,188.42
Corporations on capital stock.....	93,020,420.50
Brokers, amusements.....	9,913,280.85
Admission to places of amusements, club dues.....	81,918,556.74
Narcotics.....	1,513,919.50
Sales of condemned government property.....	3,045,492.81
Total internal revenue.....	\$5,407,580,251.81
Customs.....	322,902,650.39
Miscellaneous revenue.....	960,966,422.38
Panama Canal tolls.....	5,664,741.45
Total ordinary revenue.....	\$6,694,565,388.88

industries which profited as the result of war activities should be forced to contribute part of the profit to the expense of carrying on the war; and in the second place, it was thought that those industries which were extremely profitable should contribute a large part of that profit to the government. The rates for the income of the year 1918 were imposed as follows: First Bracket: 30 per centum of the amount of the net income in excess of the excess-profits credit and not in excess of 20 per centum of the invested capital. Second Bracket: 65 per centum of the amount of net income in excess of 20 per centum of the invested capital. Third Bracket: the sum, if any, by

¹ Report of Secretary of Treasury, 1920, pp. 410, 601.

which 80 per centum of the amount of the net income in excess of the war-profits credit exceeds the amount of the tax computed under the first and second brackets. Perhaps an illustration may make the case clearer:

EXAMPLE OF WAR-PROFIT AND EXCESS-PROFIT TAX
ON INCOME OF A CORPORATION FOR 1918

Average pre-war invested capital.....	\$2,000,000
Average pre-war net income.....	500,000
Invested capital for 1918.....	2,500,000
Gross income, including taxable interest on Liberty bonds.....	5,500,000
Deductions.....	4,800,000
Net income.....	700,000

WAR-PROFITS AND EXCESS-PROFITS TAX

First Bracket:

Income not over 20% of invested capital....	\$500,000	
Deduct excess-profits credit:		
Specific exemption.....	\$3,000	
8% of invested capital.....	<u>200,000</u>	
		<u>203,000</u>
Remainder.....	\$297,000	
Tax at 30%.....		\$89,100

Second Bracket:

Income over 20% of invested capital.....	200,000	
Tax at 65%.....		<u>130,000</u>
Total tax under first two brackets.....		\$219,100

Third Bracket:

Income.....	\$700,000	
Deduct war-profits credit:		
Specific exemption.....	\$3,000	
Average pre-war income.....	500,000	
10% of increase in invested capital.....	<u>50,000</u>	
		<u>553,000</u>
Remainder.....	\$147,000	
80% of \$147,000.....	117,600	
Tax under first two brackets.....	219,100	
Tax under third bracket.....		<u>000</u>
		\$219,100

The excess-profits tax has been probably the most severely criticised tax of all of the war expedients. It was productive during the war and during the boom in business which followed the closing of the war. It is an unsatisfactory tax in times of depression. There are many chances for injustice and inequality inherent in any tax which attempts to base the amount to be paid on calculations involving capital invested in the business and on net profits without control of the accounting of the businesses involved. According to the tax law a conservatively capitalized company was penalized and a recklessly capitalized company was rewarded. Again, by paying large salaries some of the tax could be escaped. It was currently reported that many firms entered into extended and expensive advertising campaigns, hoping to escape some of the tax and perhaps build up an asset of good-will. The grave danger of a heavy profits tax is that it will discourage business enterprise. All business involves risks of loss. These risks will not be undertaken unless there is a chance for gain. If the excess-profit tax leaves but little above what could be obtained by investing his capital in securities, the business man may conclude that the game is not worth the candle.

4. The Federal Income Tax.—Income is the ideal basis for taxation. However, there are many practical difficulties in the way of administering an income tax with rates as high as those in the federal income tax. The federal tax divides the net income up into various parts and taxes them at highly progressive rates. The table on next page gives the rates at their highest.

Gross income includes all salaries, wages, returns from businesses, and all gains or profits. Among other things, it does not include proceeds of life-insurance policies paid

INCOME-TAX RATES FOR YEAR 1918 ON NET INCOME

Income between	Rate	Income between	Rate
\$ - \$2,000.....	0%	\$56,000- \$58,000.....	39%
2,000- 5,000.....	6%	58,000- 60,000.....	40%
5,000- 6,000.....	7%	60,000- 62,000.....	41%
6,000- 8,000.....	14%	62,000- 64,000.....	42%
8,000- 10,000.....	15%	64,000- 66,000.....	43%
10,000- 12,000.....	16%	66,000- 68,000.....	44%
12,000- 14,000.....	17%	68,000- 70,000.....	45%
14,000- 16,000.....	18%	70,000- 72,000.....	46%
16,000- 18,000.....	19%	72,000- 74,000.....	47%
18,000- 20,000.....	20%	74,000- 76,000.....	48%
20,000- 22,000.....	21%	76,000- 78,000.....	49%
22,000- 24,000.....	22%	78,000- 80,000.....	50%
24,000- 26,000.....	23%	80,000- 82,000.....	51%
26,000- 28,000.....	24%	82,000- 84,000.....	52%
28,000- 30,000.....	25%	84,000- 86,000.....	53%
30,000- 32,000.....	26%	86,000- 88,000.....	54%
32,000- 34,000.....	27%	88,000- 90,000.....	55%
34,000- 36,000.....	28%	90,000- 92,000.....	56%
36,000- 38,000.....	29%	92,000- 94,000.....	57%
38,000- 40,000.....	30%	94,000- 96,000.....	58%
40,000- 42,000.....	31%	96,000- 98,000.....	59%
42,000- 44,000.....	32%	98,000- 100,000.....	60%
44,000- 46,000.....	33%	100,000- 150,000.....	64%
46,000- 48,000.....	34%	150,000- 200,000.....	68%
48,000- 50,000.....	35%	200,000- 300,000.....	72%
50,000- 52,000.....	36%	300,000- 500,000.....	75%
52,000- 54,000.....	37%	500,000- 1,000,000.....	76%
54,000- 56,000.....	38%	Over 1,000,000.....	77%

to beneficiaries; gifts and bequests; interest on state, municipal, and some United States Government bonds; and compensation insurance. To get net income, deductions are made from gross income to cover business expenses, interest, most taxes, losses, worthless debts, depreciation

on business property, and charitable contributions up to a limited amount. From net income, certain credits are allowed; namely, dividends from corporations which have paid the income tax, interest on certain obligations of the United States, \$1,000 for a single person, \$2,000 for the head of a family, and \$200 for each dependent under eighteen years of age. These exemptions were increased by the Revenue Act of 1921, described in section 9 of this chapter.

One injustice is in the favor of the farmers. The farmer gets a large part of his living from the farm and does not pay any income tax on it.

The system of self-assessment gives a chance for dishonest people to pay less than their fair share of the tax. As time goes on, there will probably develop an adequate use of information at the source for large items, but there will always be a chance to conceal numerous small items.

The chief difficulty arises from the existence of tax-free securities, by the purchase of which the investor may escape the tax. One class of these securities is issued by the federal government itself. Bonds of the first Liberty loan are free of all tax. Bonds of the Federal Farm Loan Banks are also free of tax. The second great class of exempt securities consists of state and municipal bonds. The courts have consistently held that the federal government cannot tax such bonds. The tremendously high supertaxes make even a low return on a tax-exempt bond profitable to the man whose income is large. Men who have large investments in business may not be able at once to convert them into tax-free investments, but the pressure is very great to do so.

5. The Estate Tax.—This tax is usually called the inheritance tax. In one respect it is a good tax, as the recipients of the bequests probably think more of what they are get-

ting than what they are giving up. At first thought it would seem to be an easy tax to escape by gifts before death. However, the law taxes gifts within two years of death as bequests. And most men do not believe that they are going to die soon and do not like to give up the control of their fortunes.

The present federal tax is on the net estate.

ESTATE TAX OF 1919

Net estate of a resident is obtained by subtracting from the gross estate:

- (1) Expenses of funeral and administration claims and losses; support of dependents while estate is being settled.
- (2) Property on which federal estate tax has been paid within five years.
- (3) Bequest for public, charitable, and educational purposes.
- (4) An exemption of \$50,000.

RATES OF TAX ON NET ESTATE

Up to \$50,000	1%	\$1,500,000—\$2,000,000	12%
\$50,000— 150,000	2%	2,000,000— 3,000,000	14%
150,000— 250,000	3%	3,000,000— 4,000,000	16%
250,000— 450,000	4%	4,000,000— 5,000,000	18%
450,000— 750,000	6%	5,000,000— 8,000,000	20%
750,000—1,000,000	8%	8,000,000—10,000,000	22%
1,000,000—1,500,000	10%	Over 10,000,000	25%

Thus if the net estate were \$1,000,000 the tax would be \$51,500, made up as follows:

1% on \$50,000	\$500
2% on 100,000	2,000
3% on 100,000	3,000
4% on 200,000	8,000
6% on 300,000	18,000
8% on 250,000	20,000
	<hr/>
	\$51,500

6. Internal Revenue Duties.—*Taxes on Commodities and Transactions.*—Most internal revenue taxes on commodities and documents are collected by means of stamps. For ease of supervision, the stamping is usually required to be done at the point in manufacture or trade where the goods are most concentrated. Before the war this system worked well with liquor and tobacco. Any one could tell whether the tax had been paid. As to documents, the provision that they shall not be legal unless stamped has usually been effective in insuring the use of the stamps.

The so-called luxury taxes and the tax on refreshments are less good from the administrative standpoint. The big stores undoubtedly keep accurate records and pay the tax. It is doubtful whether all of the small stores return all that they collect. There is no adequate check on the receipts or even on the number of stores that are supposed to make returns.

The same is true of the tax on the admission to amusements. In ordinary theatres and in league baseball, the financial arrangements require accurate accounts and probably the government gets what is collected. But it would be easy in the case of the small moving-picture house or in the case of the occasional entertainment to neglect to return all or part of the tax collected.

7. Details of Expenditures.—We turn now to the details of the expenditures of the federal government. Of course, we recognize the unusual character of the year in question. Before the war the expenditures of the federal government amounted to about \$1,000,000,000 a year; now the interest on the public debt is over \$1,000,000,000 a year.

The big items are for war and navy. Perhaps these will be reduced by disarmament agreements. The item *federal*

control of transportation will not be so large again, but will be present until all of the claims of the railroads, particularly for deferred maintenance, have been settled.

DISBURSEMENTS OF THE FEDERAL GOVERNMENT
FOR THE YEAR ENDING JUNE 30, 1920¹

Legislative establishment.....	\$19,327,708.72
Executive proper.....	6,675,517.58
State Department.....	13,586,024.42
Treasury Department.....	322,315,627.43
War Department.....	1,610,587,380.86
Department of Justice.....	17,814,398.18
Post-Office Department.....	50,049,295.07
Navy Department.....	736,021,456.43
Interior Department.....	279,244,660.87
Department of Agriculture.....	65,546,293.14
Department of Commerce.....	30,010,737.75
Department of Labor.....	5,415,358.40
United States Shipping Board.....	530,565,649.61
Federal Control of Transportation.....	1,036,672,157.53
War Finance Corporation.....	134,628,433.27
Grain Corporation.....	350,328,494.70
Other independent offices and commissions.....	59,469,305.17
District of Columbia.....	19,987,898.41
Interest on public debt.....	1,020,251,622.28
Total.....	\$6,308,498,019.80
Deduct unclassified repayments.....	4,399,847.00
	<hr/> \$6,304,098,172.82
Panama Canal.....	11,365,714.01
Purchase of obligations of foreign governments.....	421,337,028.09
Purchase of Federal farm loan bonds.....	29,643,546.17
	<hr/> \$6,766,444,461.09
Special deposit of War Finance Corporation.....	363,100,619.88
	<hr/> \$6,403,343,841.21
Net ordinary.....	\$6,403,343,841.21

¹ Report of Secretary of Treasury, 1920, pp. 410-411.

8. The Problem of the Debt.—The problem confronting the secretary of the treasury is how to meet the floating indebtedness and the Victory notes, which it will be remembered were made to run for only five years. The obligations were put in short-time form with the hope that the funds would be available to pay them off as they came due. The depression of 1920 will hamper the raising of sufficient revenue to retire them.

The repaying of the Liberty bonds illustrates the evils of a fluctuating standard of value. The money was spent when prices were high. It will be repaid when prices are lower. The bondholder will gain and the government lose, in the sense that it will be harder to raise the taxes to pay the debt. In one sense, an internal debt is no burden to the country as a whole, since it merely means a redistribution of funds. What one group loses another group gains. The system of taxation followed will determine what classes within the country bear the burden. It is not inconceivable that future elections will be fought on the question of the taxation policy. The country which borrowed abroad must in the future pay back the loan. This means that the people of that country will have less to consume and the country which holds the bonds will have more to consume.

After the Civil War there was agitation against the bondholders. The wide distribution of the Liberty loans would be a bar to the recurrence of such agitation. Unfortunately, the Liberty bonds did not stay so widely distributed. We may have trouble with those who paid par for their bonds and later sold them at a sacrifice.

9. Revision of Taxation.—During war times the public will submit to heavy taxation. After the war, there al-

ways arises a demand for release from the burdens of the war taxation. The conflict in Congress was over the class which should bear most of the taxation. The agricultural bloc prevented much reduction in the surtaxes in the income-tax rates. They thought that they were preventing the shifting of the burden to the masses.

In the income tax, no changes were made in the surtaxes for the tax payable in 1922 on the income for 1921. The surtaxes for the income for 1922 and after were cut somewhat. The exemption for married persons was increased from \$2,000 to \$2,500 for those with incomes below \$5,000, and the exemption for dependents was increased from \$200 to \$400 each. These changes apply to the income tax for 1921, payable in 1922.

The following table, which is for a married man claiming personal exemption but not exemption for dependents, shows the normal rates, surtax, and amount of tax on incomes up to \$1,000,000 for 1921 and 1922 under the new law.

The excess-profits tax was repealed to take effect January 1, 1922, so the tax will be collected on the profits for the year 1921. In a sense it was replaced by increasing the rate which corporations are required to pay on their net income from 10 per cent to 12½ per cent, to take effect on the income of 1922.

The tax of 8 per cent on passenger transportation and of 3 per cent on freight transportation was eliminated after January 1, 1922. Numerous small taxes, called nuisance taxes, were taken off.

10. Exercises.—1. Why has the United States derived so little revenue from its public lands?

2. Why were not internal revenue taxes used earlier in this country?

¹ Net Income	Per Cent of Nor- mal Tax	Per Cent of Surtax, 1921	Per Cent of Surtax, 1922 and Thereafter	Total Tax, 1921	Total Tax, 1922, and Thereafter
\$3,000	4	..	..	\$20	\$20
4,000	4	..	..	60	60
5,000	4	..	..	100	100
6,000	4	1	..	170	160
8,000	8	2	1	370	340
10,000	8	3	1	590	520
12,000	8	4	2	830	720
14,000	8	5	3	1,090	940
16,000	8	6	4	1,370	1,180
18,000	8	7	5	1,670	1,440
20,000	8	8	6	1,990	1,720
22,000	8	9	8	2,330	2,040
24,000	8	10	9	2,690	2,380
26,000	8	11	10	3,070	2,740
28,000	8	12	11	3,470	3,120
30,000	8	13	12	3,890	3,520
32,000	8	14	13	4,330	3,940
34,000	8	15	15	4,790	4,400
36,000	8	16	15	5,270	4,860
38,000	8	17	16	5,770	5,340
40,000	8	18	17	6,290	5,840
42,000	8	19	18	6,830	6,360
44,000	8	20	19	7,390	6,900
46,000	8	21	20	7,970	7,460
48,000	8	22	21	8,570	8,040
50,000	8	23	22	9,190	8,640
52,000	8	24	23	9,830	9,260
54,000	8	25	24	10,490	9,900
56,000	8	26	25	11,170	10,560
58,000	8	27	26	11,870	11,240
60,000	8	28	27	12,590	11,940
62,000	8	29	28	13,330	12,660
64,000	8	30	29	14,090	13,400
66,000	8	31	30	14,870	14,160
68,000	8	32	31	15,670	14,940
70,000	8	33	32	16,490	15,740
72,000	8	34	33	17,330	16,560
74,000	8	35	34	18,190	17,400
76,000	8	36	35	19,070	18,260
78,000	8	37	36	19,970	19,140
80,000	8	38	37	20,890	20,040
82,000	8	39	38	21,830	20,960
84,000	8	40	39	22,790	21,900
86,000	8	41	40	23,770	22,860
88,000	8	42	41	24,770	23,840
90,000	8	43	42	25,790	24,840
92,000	8	44	43	26,830	25,860
94,000	8	45	44	27,890	26,900
96,000	8	46	45	28,970	27,960
98,000	8	47	46	30,070	29,040
100,000	8	48	47	31,190	30,140
150,000	8	52	48	61,190	58,140
200,000	8	56	49	93,190	86,640
300,000	8	60	50	161,190	144,640
500,000	8	63	50	303,190	260,640
1,000,000	8	64	50	663,190	550,640

¹ In computing the tax, personal exemption of \$2,500 is allowed on incomes not in excess of \$5,000, and \$2,000 is allowed on incomes of \$6,000 or over, both under the new law. No allowance is made for credit for dividends or interest on United States obligations, if any, included in net income. Neither is there any allowance of any exemption for dependents. For incomes over \$1,000,000 the rate of the normal tax is 8 per cent, the surtax for 1921 is 65 per cent, and the surtax for 1922 and thereafter is 50 per cent.

3. Why do not people donate money to the government?
4. From the report of the secretary of the treasury, or from the statistical abstract of the United States, draw diagrams showing the yearly receipts from customs and from internal revenue.
5. What was the idea back of the excess-profits tax?
6. What was the chief difficulty in assessing the excess-profits tax?
7. What was the incidence of the excess-profits tax?
8. What is the purpose of the exemptions in the income tax?
9. Figure the income tax paid on a net income for the year 1918 of \$205,000, \$340,000, \$1,625,000, and \$1,000,000,000.
10. How do people escape paying the federal income tax?
11. If the tax rate is progressive, which is fairer, to tax the estate as a whole or the separate bequests? Which is more productive?
12. Under the federal estate tax, upon whom would the burden really fall?
13. What were the principal internal revenue duties before the war?
14. What are the difficulties in collecting the luxury and amusement taxes?
15. Why do government expenditures never get back to pre-war figures?
16. Should the war debt be paid quickly? at all?
17. Should any payment on the principal of the debt be made in time of depression?
18. Which of the war taxes should be repealed first?
19. Are stock dividends income?

CHAPTER XX

RECEIPTS AND EXPENDITURES OF CITIES AND STATES

1. The Expenditures of Various Government Bodies. 2. The Finances of New York City. 3. The Receipts of New York City. 4. The Expenditures of New York City. 5. The Receipts and Expenditures of Philadelphia. 6. The Receipts and Expenditures of State Governments. 7. The General Property Tax. 8. Corporation Taxes. 9. The Single Tax on Land—Modifications. 10. State Income Taxes—The New York Tax. 11. State Inheritance Taxes—The New York Tax. 12. Exercises.

1. The Expenditures of Various Government Bodies.—
In this chapter we shall study in some detail the finances of New York City as the largest city in the United States, and in less detail Philadelphia, as more typical of other cities in the country. We shall treat the states all together, indicating the percentages of revenue received from various sources and the percentages which went for the various expenditures.

First, we may compare the pre-war expenditures of the various governmental bodies.

NET GOVERNMENTAL COST PAYMENTS, 1913¹

	Amount	Per Capita
National government.....	\$1,048,225,180	\$10.36
State governments.....	505,399,448	5.05
Governments of cities with over 30,000 population.....	1,043,594,297	32.34

¹ Financial Statistics of States, 1917, p. 32.

The striking thing is the large expenditure of the cities and the relatively small expenditures of the states.

2. Finances of New York City.—We may start with the controller's statement of receipts and expenditures.

SUMMARY OF RECEIPTS AND PAYMENTS OF THE CITY OF NEW YORK DURING
THE YEAR ENDED DECEMBER 31, 1920

CITY TREASURY

RECEIPTS

Tax Collections by Receiver of Taxes.....	\$196,083,027.13
Tax Collections by Collector of Assessments and Arrears.....	13,844,561.04
	<u>\$209,927,588.17</u>
Appropriation, Reimbursements and Refunds to Accounts of 1917, 1918, 1919, and 1920.....	\$343,658.11
To General Fund, Sundry Revenue Receipts..	\$13,500,460.24
To General Accounts, Sundry Revenue Re- ceipts.....	21,240,812.74
	<u>34,741,272.98</u>
Surplus Revenues of Sinking Fund (General Fund Bonds issued therefor).....	32,500,000.00
	<u>67,584,931.09</u>
Special Accounts.....	15,896,831.20
Trust Accounts.....	464,915.20

Corporate Stock Accounts—

Assessments Collected.....	\$8,324,138.03
Proceeds of Sale of Tax Notes.....	\$4,250,000.00
Proceeds of Sale of Corporate Stock.....	1,624,000.00
Corporate Stock Notes.....	199,799,442.73
Proceeds of the Sale of Assessment Bonds...	1,500,000.00
Proceeds of the Sale of Gold Exempt Bonds..	3,200,000.00
	<hr/>
Reimbursements and Refunds.....	210,373,442.73
	<hr/>
	453,372.20
	<hr/>
	\$219,150,952.96

Bond Accounts—

Proceeds of Sale of Special Revenue Bonds, Net.....	\$36,392,900.00
Proceeds of Sale of Revenue Bills.....	261,225,000.00
	<hr/>
	297,617,900.00
	<hr/>
Reimbursements and Refunds.....	516,768,852.96
	<hr/>
	56,014.13

Total City Treasury Receipts During 1920.....	\$810,699,132.75
Total Sinking Fund Receipts During 1920.....	95,034,709.01

	<hr/>	\$905,733,841.76
Cash Balance of City Treasury as of January 1, 1920.....	\$15,651,134.46	
Cash Balance of Sinking Funds as of January 1, 1920.....	3,467,112.77	

Total Cash Balance, January 1, 1920.....	19,118,247.23
	<hr/>
Total	\$924,852,088.99

PAYMENTS

From Appropriations for the Year 1920.....	\$260,255,173.23
From Appropriations for 1898 up to the Year 1918, inclusive.	14,193,936.92
	<hr/>
From General Account.....	\$274,449,110.15
From Special Revenue Bond Funds.....	9,618,206.93
From Bond Account (Corporate Stock).....	33,689,551.94
From Street Improvement Fund.....	\$34,830,033.62
From Fund for Street and Park Openings.....	6,244,609.91
From Miscellaneous Assessment Accounts.....	10,073,643.41
	<hr/>
From Special Accounts.....	51,158,696.44
From Borough Accounts.....	9,563,658.25
From Trust Funds.....	56,559.61
Redemption of Assessment Bonds—Corporate Stock Funds.....	658,387.41
Redemption of Assessment Bonds (Borough Accounts).....	2,000,000.00
Redemption of Water Bonds (Borough Accounts).....	301,600.00
Redemption of Revenue Bonds and Bills (Temporary Debt).....	42,000.00
Redemption of Corporate Stock Notes.....	230,820,500.00
	<hr/>
Total City Treasury Payments During 1920.....	\$786,963,270.73
Total Sinking Fund Payments During 1920.....	97,021,877.33
	<hr/>
Cash Balance in City Treasury December 31, 1920.....	\$883,985,148.06
Cash Balance in Sinking Funds December 31, 1920.....	\$39,386,996.48
	<hr/>
Total Cash Balance, December 31, 1920.....	1,479,944.45
	<hr/>
Total.....	40,866,940.93
	<hr/>
	\$924,852,088.99

The *special accounts* include numerous items, such as improvement funds and revenues from city colleges. The largest single item is money received from the state for education. The second largest is receipts from sale of water. *Corporate stock* includes stock for water, rapid transit, docks, and assessments for street and park openings.

Trust accounts cover pension funds, gifts, fines, and penalties held in trust, and uncalled-for wages.

The next table gives more in detail the receipts, excluding borrowing and special accounts.

RECEIPTS OF NEW YORK CITY FOR YEAR ENDING
DECEMBER 31, 1920

Taxes on land and buildings.....	\$194,956,773.44
Special franchise taxes.....	6,284,748.37
Taxes on real estate of corporations.....	5,057,149.10
Personal property tax.....	3,623,980.45
Arrears of old taxes.....	5,936.81
Total taxes.....	<hr/> \$209,927,588.17
Total fees.....	\$1,561,257.74
Total interest.....	83,831.01
Total licenses.....	362,053.50
Total permits.....	287,538.25
Total privileges.....	295,090.18
Total rentals.....	38,545.88
Special bank tax.....	5,724,160.30
Mortgage tax.....	7,608,209.17
Share of state income tax.....	12,469,255.74

The licenses cover auctions, peddlers, amusements; and include marriage licenses. The permits issued were for golf, sewers, and drains. The privileges sold were concessions on bridges and in parks. The special bank tax is a tax on the shares of all banks. The special franchise taxes

arise from the New York law which permits the taxation of franchises as real estate. The great disproportion between the tax on land and buildings and personal property reflects somewhat the ease with which personal property can be concealed.

We may next consider the appropriations in more detail. The total is less than is given in the controller's summary, because it does not include about nine millions appropriated for the county governments within New York City and about the same amount of tax paid to the state.

APPROPRIATIONS FOR YEAR 1920 FOR NEW YORK CITY

Board of Aldermen and City Clerk.....	\$302,840
Board of Estimate and Apportionment.....	368,999
Commission of Sinking Fund.....	3,890
The Mayoralty.....	71,247
Department of Finance.....	1,547,248
City Chamberlain.....	69,995
Law Department.....	1,030,493
Department of Taxes and Assessment.....	640,281
Board of Elections.....	2,129,915
Municipal Civil Service.....	211,772
Commissioner of Accounts.....	252,520
Bureau of Weights and Measures.....	67,169
Department of Licenses.....	195,703
Department of Public Markets.....	209,785
Board of Assessors.....	38,333
Art Commission.....	7,526
Examining Board of Plumbers.....	7,210
Presidents of the Boroughs.....	14,843,881
Department of Education.....	49,408,681
City Colleges.....	1,460,986
Teachers' Retirement.....	2,621,433
Public Libraries.....	1,849,439
Parks and Museums.....	4,727,622

Police Department.....	\$24,591,187
Fire Department.....	13,186,753
Armory Board.....	392,026
Board of Standards and Appeals.....	38,810
U. S. Volunteer Life Saving Corps.....	6,887
Department of Health.....	4,729,832
Department of Public Charities.....	7,497,561
Board of Child Welfare.....	2,084,492
Hospitals.....	2,835,624
Department of Water Supply, Gas, and Electricity.....	7,513,150
Department of Street Cleaning.....	13,163,524
Charitable Institutions.....	8,149,388
Department of Correction.....	2,331,214
Department of Plants and Structures.....	3,432,416
Department of Docks and Ferries.....	1,123,274
City Courts.....	3,110,497
Board of City Record.....	1,093,730
Debt Service.....	74,811,539
Miscellaneous.....	4,282,568
Total.....	<u>\$256,441,440</u>

The figures for the debt are of interest.

Net Funded Debt held by public.....	\$1,034,544,694
Temporary debt.....	<u>103,125,083</u>
	\$1,137,669,777

This debt is approximately as large as the debt of the federal government before the war.

The figures for Philadelphia, Pennsylvania, probably represent more nearly the situation of other cities than does New York City.

5. Receipts and Expenditures of Philadelphia.¹—

RECEIPTS OF PHILADELPHIA, PENNSYLVANIA, 1917

General property tax.....	\$27,856,283
Poll tax.....	75,038

¹ U. S. Census, Financial Statistics of Cities, pp. 140-141.

Business tax.....	\$2,152,182
Non-business license.....	125,872
Special assessments.....	697,821
Fines, forfeits, and escheats.....	74,717
Subventions and grants.....	1,211,393
Donations and gifts.....	8,466
Pension assessments.....	243,670
General departmental earnings.....	1,711,374
Highway privileges.....	630,744
Rents.....	4,774,996
Interest.....	1,872,691
Earnings of public-service enterprises.....	5,233,339
	<hr/> \$46,668,586

Two of these items may need a little explanation. Subventions consist mostly of state aid for education. General department earnings are for licenses and permits.

The expenditures are given in the following table:

OUTLAYS OF PHILADELPHIA, PENNSYLVANIA, 1917¹

Legislative—Council and Board of Aldermen.....	\$106,334
Mayor's Office.....	44,159
Financial Department.....	1,223,494
City Solicitor's Office.....	249,388
Other executive departments.....	387,575
Judicial branch.....	1,541,527
Elections.....	933,242
Care and rent of buildings.....	502,706
Police Department.....	4,566,325
Fire Department.....	1,447,069
Militia.....	48,500
Register of Deeds and Mortgages.....	281,825
Inspection service.....	242,728
Other protection to persons and property.....	246,241
Conservation of health.....	689,569
Sanitation.....	2,460,808

¹U. S. Census, *Financial Statistics of Cities, 1917*, pp. 141, 200-207, 233-238.

Highways.....	\$3,739,332
Charities, Hospitals, and Corrections.....	3,737,554
Education.....	8,461,718
Recreation.....	1,451,500
Miscellaneous.....	532,455
General expenses.....	812,565
Public-service enterprises.....	2,401,076
Interest on indebtedness.....	5,206,451
Outlays.....	18,031,387
	<u>\$59,345,528</u>

The meaning of most of these items is clear. The Financial Department includes the treasurer, the auditor, and the force which has to do with the assessment and collection of revenue. Other executive departments include the City Clerk, the City Engineer, the Board of Public Works, the Civil Service Department, the Department of Public Safety, and the Department of Public Buildings and Grounds. The judicial branch includes the courts, the coroner, the marshal, and the sheriff. Inspection service covers buildings, weights and measures, and boilers. Other protection to person and property means the fire-alarm system and pounds for dogs. Under sanitation comes sewers and the collection and disposal of refuse. Highways include roadways and bridges, sprinkling streets and lighting them. Under the head of charities we find outdoor poor relief, poor-houses, the care of children, general hospitals, the care of the insane, and the probation officers. General expenses cover pensions for the policemen, the firemen, the teachers, and the employees of the Health Department; also judgments and losses. The public-service enterprises are water-works, markets, and docks. The outlays cover any permanent additions to the property of the city.

6. Receipts and Expenditures of the State Governments.—In our study of the state receipts and expenditures, we will take the percentage distribution rather than the actual figures, since the percentage figures are easier to grasp. The figures are for all of the states of the United States.

PERCENTAGE DISTRIBUTION BY PRINCIPAL CLASSES
OF REVENUE RECEIPTS OF ALL STATES FOR 1917¹

	Per Cent
Property taxes.....	53.1
Special property taxes.....	2.6
Poll taxes.....	0.4
Business and non-business licenses.....	22.3
Special assessments and special charges for outlays.....	0.6
Fines, forfeits, and escheats.....	0.4
Subventions, grants, donations, and pension assessments.....	2.1
Earnings of general departments.....	12.0
Highway privileges, rents, and interest.....	6.0
Earnings of public-service enterprises.....	0.5

We may indicate what is included in the various classes before considering the merits of the separate taxes. Property tax means the general property tax. The special property taxes include taxes on inheritances, corporations, savings-banks, mortgages, secured debts, telegraph and telephone companies, etc. Business taxes include licenses on the liquor traffic, taxes on insurance companies, taxes on corporations, taxes on incomes of individuals. The most important non-business licenses are on motor vehicles and permits for hunting and fishing. Special assessments are usually in connection with parks or highways. Fines come as the result of activities of courts; forfeits come in connec-

¹ Financial Statistics of States, 1917, p. 71.

tion with bonds given to guarantee the performance of contracts. Escheats are funds received from the sale of property whose owners cannot be located. Subventions are principally the payments received from the federal government for education, highways, and experiment stations. Donations are usually for schools or hospitals. Earnings of general departments are mostly fees for services rendered, such as issuing and filing of legal papers, boiler inspection, moving-picture censorship, and regulation of various trades. Highway privileges are enjoyed and paid for by some public-utility companies. The public services include docks, wharfs, ferries, canals, and irrigation.

HOW THE STATES SPENT THEIR MONEY IN PERCENTAGES
OF THE TOTAL EXPENDITURES OF 1917¹

	Per Cent
General officers, executive, legislative and judicial.....	10.7
Protection to person and property.....	6.1
Development and conservation of natural resources.....	4.5
Conservation of health and sanitation.....	2.6
Highways.....	7.9
Charities, hospitals, and corrections.....	24.3
Schools.....	37.5
Libraries.....	0.3
Recreation.....	0.3
General.....	4.9

7. The General Property Tax.—This tax may be called the backbone of the revenue systems of the states and cities. It is also the chief problem of public finance. All taxes are supposed to be paid from income. The amount of property held is taken as an indication of income. It is a good indication of income in a primitive state of society

¹Financial Statistics of States, 1917, p. 96.

with no credit instruments and no salaried people. In such a society the property is tangible, and the assessors do not have much difficulty in finding the property. In our modern situation, with its mortgages, corporate stocks and bonds, and government bonds, it is practically impossible to find the property if the owner wishes to conceal it. So, in many cases, the tax degenerates into a tax on tangible personal property and the intangible personal property of the very conscientious. Because most people do not report all of their personal property, the tax rate must be very high. Thus, we have the essentially immoral situation of a tax system that penalizes honesty and rewards dishonesty. Besides this fault in administration, there is the fundamental objection that in our present organization with its many people working for salaries, the amount of property held is no test of income. Especially is this true in New York City, where a small proportion of people own their own homes, and many a family on a salary spends it all and has little property except furniture and clothes. It is better to separate the real estate from the personal property and tax each at a different rate. Iowa found that more revenue was received from personal property when a tax of $\frac{1}{2}$ of 1 per cent was levied on it directly than when the attempt was made to collect a tax of around 2 per cent on it under the general property tax.

8. Corporation Taxes.—Many corporation taxes are the result of anti-corporation sentiment. People fail to distinguish between charters which permit persons to become a corporation and those grants which give special and exclusive privileges.

When the corporation is singled out for taxes not applied to all individuals, the tax is usually in the form of a license

or payment for the permission to do business within the state. In this form it is possible to reach corporations chartered in other states. Many puzzling problems arise in connection with the taxation of corporations, such as railroads which have property and do business in several states. How shall the earnings be apportioned among the states for taxation? Indeed, there is frequently also a problem of apportioning the total taxes collected among the counties and cities within the state.

Sometimes the corporations are taxed on their capital stock. This disregards the question of the profitableness of the business and the question of over and under capitalization. If earnings are taxed, fairness demands that the tax be on net earnings, but expedience and ease of administration often results in taxing gross earnings. This is an unfair burden on the businesses with small profit and rapid turnover.

9. The Single Tax on Land.—Henry George was a printer in California at the time of great speculation in land. He was greatly impressed by the growth in the value of land. He held that this growth was due to social causes, and yet under our present system individuals got the benefit of the increase in value. This increase is what is meant by the unearned increment. As the result of his observations and study he published a book called *Progress and Poverty*. The book is written in a charming style and is actuated by a real desire to help humanity. We may find a great deal of fault with Henry George's analysis, but none at all with his spirit. The problem as he sees it is why poverty persists in spite of progress. He believed that all of the ills of society are due to our system of landholding. So the solution is simple. If we take by

taxation all of the economic rent of all land, society will lose all of its ills. No other taxes were to be levied. This universal-panacea idea has been a great help in propaganda, but rather a hindrance to those people who doubt whether only one thing is wrong with society.

Our first objection to the single tax is that it involves confiscation. If you take away the economic rent of a piece of land as a tax, you have really taken the ownership. Confiscation of any sort is bad, because it takes away the feeling of security, which is one of the essential conditions for economic enterprise.

Second, Henry George had a simple belief that in some miraculous way the amount of economic rent would always be sufficient to carry on the government. Most economists would agree that ordinarily as population increases the amount of rent also increases, but they would be slow to believe that the increase would be just what was needed for the government. Rents fell in England in the nineteenth century as the result of the opening up of our Middle West, Canada, and Argentina. At the same time population was increasing in England. The British Government would have been in great difficulties if it had been depending on the single tax.

Third, our idea of justice in taxation requires that each should contribute according to his ability. Yet the single tax would reach only the landowners.

Fourth, all lands do not increase in value. The subways in New York City increased the value of down-town property and the property in the sections made available for residence, but they decreased the value of certain sections in between. The development of the Middle West caused many New England and New York farms to be abandoned.

If the state takes the unearned increment, should it not compensate for the unearned decrement?

Modifications of the Single Tax.—At the present time, many so-called single taxers are simply people who believe that an increasing burden should be put on land in taxation. Some experiments have been tried in taxing the increment in the value of land. A considerable number of German cities starting about 1905 tried such a tax. The Imperial German Government adopted a tax of this kind in 1911. It is retroactive, since the increment is figured from the last sale, or from January 1, 1885, whichever is the later. A yearly percentage is added, which is supposed to compensate for the rise in the general level of prices. No provision is made to protect the government in the case of falling prices. The tax takes from 10 per cent to 30 per cent of the increment, depending on the percentage of increase in value. The rates are subject to a deduction of 1 per cent for each year of ownership.

The famous Lloyd George Budget, which resulted in modifying the powers of the House of Lords in England, included an increment land tax. It avoids the charge of confiscation by taxing only the increment after April 30, 1909, the time the tax was proposed. It is levied on the increase in value of the site. Agricultural land is not included. The tax is 20 per cent of the increment above 10 per cent. To administer the law required that all lands subject to the tax be valued as of April 30, 1909. This work was so expensive and the returns from the tax so small that the collection of the tax was suspended during the war.

It is probable that in the United States, with our general property tax, we have succeeded in getting more of the

unearned increment of land than either Germany or Great Britain.

10. State Income Taxes.—For many years it was thought that states could not utilize the general income tax successfully. Many experiments with the tax had been tried and failed. The administration was usually local, and when the taxpayers did not report their incomes, the local assessors did not enforce the penalties. Again, the failure to assess intangible personal property under the general property tax was supposed to show the impracticability of the income tax.

Recently, some states have introduced the income tax with considerable success. Much of this success is due to the development of state tax administration to control and unify the local administration. Wisconsin in 1911 introduced the first of the newer state income taxes. The state attempts to tax the incomes of individuals and corporations which are earned or are derived from sources within the state. Property whose income has paid income tax is exempted from the property tax. For single persons the exemption is \$800; for married \$1,200, with \$200 for each dependent child. The first \$1,000 of taxable income of individuals is taxed 1 per cent. The rate rises to 6 per cent on the amount over \$12,000. Corporations pay 2 per cent on the first \$1,000 and 6 per cent on the income over \$6,000.

The New York Income Tax.—This tax took effect in 1920 on the income of 1919. It follows the federal income tax, with variations due primarily to differences in law about exemptions. Thus, the New York State law does not exempt from taxation dividends on stock as the federal law does. The personal exemptions are \$1,000 for single,

\$2,000 for married, plus \$200 each for dependents. The amount above the exemptions and the deductions is taxed 1 per cent on the first \$10,000, 2 per cent on the next \$40,000, and 3 per cent on the amount over \$50,000.

An interesting feature of the law is the effort to tax the earnings of non-residents. Many people who work in New York City live in New Jersey and Connecticut. The New York law requires non-residents to pay on the income from property in New York, or business conducted in New York, or from services rendered in New York, and gives them the same exemptions as residents of New York.

II. State Inheritance Taxes.—The inheritance tax is particularly well adapted to the states because the administration of the estate of the deceased is in the hands of the state courts. No transfer of the property can be made without the consent of the court; so none of the estate can escape taxation. The theory is that the tax is on the transfer and that the state could, if it wished, take all of the property.

One great evil has arisen in connection with state inheritance taxes. The states, in their greed, try to tax any estate on any pretext. Thus, the state in which the deceased lived will wish to tax the whole amount of the bequests. Then the state in which any property is situated will insist on getting a tax on that property. The state in which the evidence of property (such as stocks and bonds) is located, often in a safe-deposit vault, may demand a tax. Thus, because of lack of comity among the states, one estate may be subject to unjust multiple taxation.

The New York Inheritance Tax.—This is a tax on the various bequests as distinguished from the federal tax, which is on the estate as a whole. Bequests for religious

and charitable purposes are not taxed. The rates are progressive in two senses; they increase with the size of the inheritance, and with the remoteness of the relationship.

Bequests to father, mother, husband, wife, or child are exempt to \$5,000; 1 per cent is charged on the first \$25,000 above the exemption; 2 per cent on the next \$75,000; 3 per cent on the next \$100,000; and 4 per cent on all over that amount.

An exempted amount of \$500 is allowed in bequests to brothers, sisters, wife, or widow of son, husband of daughter, or one treated as a child. The rates on bequests above the exemption are 2 per cent on the first \$25,000, 3 per cent on the next \$75,000, 4 per cent on the next \$100,000, and 5 per cent on the balance.

An exemption of \$500 is allowed in bequests to non-relatives. The rates above the exemption are much higher than in the other cases. They start with 5 per cent on the first \$25,000; then 6 per cent on the next \$75,000; 7 per cent on the next \$100,000; and 8 per cent on the balance.

The New York law applied to non-residents in so far as they bequeath real property situated within the state and shares in New York corporations.

12. Exercises.—1. Why do states spend so much less than the cities and the federal government?

2. What is the chief source of revenue of New York City? of Philadelphia?

3. What are the five greatest groups of expenditure for New York City? for Philadelphia?

4. What classes of taxes yield the most revenue for the states?

5. What are the chief expenditures of the states?

6. What is the objection to the use of property as a measure of ability to pay taxes?

7. What happens to personal property under the general property tax?

8. Which is the fairer basis for taxing corporations, gross or net earnings? Which is the more easily administered?

9. Which is the fairer basis for taxing corporations, capital, or earnings?

10. Should a corporation be allowed to deduct its bonded indebtedness from its valuation?

11. Discuss the market value of stocks and bonds as a basis for taxing corporations.

12. What is the fairest way to tax corporations with property in more than one state?

13. What is the objection to any single tax?

14. Does the single tax follow the benefit or the ability theory of justice in taxation?

15. What is the objection to taking the past unearned increment in the value of land?

16. What provision does the single tax make for the unearned decrement?

17. Supposing that prices rise as the result of monetary inflation, is there any real unearned increment?

18. Indicate the chances for double taxation in state inheritance taxes.

19. From the standpoint of ease in administration, which state should tax inheritances?

20. Why does New York state tax the earnings of residents of New Jersey who work in New York?

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